DOCUMENT RESUME

ED 205 288 PS 012 305

TITLE	Framework for Nutrition Education: A Guide for Elementary Teachers, Grades K-6. Bulletin 1976, No. 5.
INSTITUTION	Alabama State Dept. of Education, Montgomery. Div. of Administration and Finance.
PUB DATE	Nov 75
NOTE	109p.
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	Advertising; *Curriculum Enrichment; Curriculum Guides; Eating Habits; Elementary Education; Food Standards; *Learning Activities; Nutrition; *Nutrition Instruction; Objectives; Physiology; *Resource Materials; Sanitation; *Teaching Methods
IDENTIFIERS	Food Consumption; Food Production; Food Selection

ABSTRACT

The purpose of this guide is to provide a framework on which elementary school teachers (K through 6) can build a nutrition program that can be implemented into the existing curriculum. Founded on the importance of early and sound education for instilling good nutrition habits, the guide is divided into three grade levels: K through 2 (Discovering Food); 3 through 4 (Food Choices); and 5 through 6 (Nutrition Trek). Concepts covered in this guide include sources of food; kinds of food; food for growth and energy; eating habits; snack foods; food customs; nutrients, selection, production, and sanitation; digestion of food; and buying and selling food. For each concept, sequential performance objectives, learning activities, evaluations, and a resource page are provided. A bibliography of books, pamphlets, charts and posters, films and filmstrips, and miscellaneous material is appended. (Author/MP)

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FRAMEWORK

FOR

NUTRITION EDUCATION

A GUIDE FOR

ELEMENTARY TEACHERS

GRADES
K–6

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BULLETIN 1976, No. 5

FRAMEWORK

FOR

NUTRITION EDUCATION

A GUIDE FOR

ELEMENTARY TEACHERS

GRADES K - 6

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November, 1975

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BULLETIN 1976, No. 5

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FOREWORD

"Framework for Nutrition Education, A Guide for Elementary Teachers, Grades K-6", originated as an outgrowth of a nutrition education project, "A Demonstration Project for Employment and Utilization of a State Nutrition Education Specialist in Alabama", which was funded by the United States Department of Agriculture. This edition resulted from revisions made following suggestions of teachers in experimental schools where the guide was tried during a follow-up project, also funded by the United States Department of Agriculture, "Development, Adoption, or Modification of a Nutrition Education Program, and Evaluation of its Impact on Student Participation in Child Nutrition Programs and Their Acceptance of Food Served in These Programs".

The purpose of this guide is to provide a framework for elementary teachers on which to build a nutrition program that is integrated into the existing curriculum.

The experiences and activities in this guide suggest opportunities for children to learn about food and nutrition in meaningful ways at an early age when attitudes and habits are being formed.

It is anticipated that teachers will use these suggestions and solicit the cooperation of managers in child nutrition programs, health professionals and others, as resource people, to guide children in establishing habits that will help make them physically secure.

T. G. Smith, Jr., Coordinator
Child Nutrition Programs

ACKNOWLEDGMENTS

Completion of the "Framework for Nutrition Education, A Guide for Elementary Teachers, Grades K-6", has been an endeavor shared by many who have an interest in the fields of nutrition and education.

Grateful appreciation is extended to the following groups and agencies which have made outstanding contributions toward this guide.

United States Department of Agriculture
Food and Nutrition Service, Washington, D.C.
Food and Nutrition Service, Southeast Region, Atlanta, Georgia
Alabama Cooperative Extension Service, Auburn, Alabama

State of Alabama, Department of Education
. Division of Administration and Finance
Child Nutrition Programs Section
. Division of Departmental Services
Graphic Arts Section
Planning and Evaluation Section
. Division of Instruction
Health, Physical Education, Recreation and Safety and Traffic Education Section
Language Arts - Audio Visuals Section
. Division of Vocational Education and Community Colleges
Home Economics Education Section
. Bullock County Board of Education
. Jefferson County Board of Education
. Montgomery County Board of Education

Auburn University, Department of Nutrition and Foods

Tuskegee Institute, Dietetics Department

State of Alabama, Department of Public Health
Bureau of Maternal and Child Health
County Health Departments

Dairy Council of Alabama, Inc.

Advisory Council for the Nutrition Education Project

INTRODUCTION

Nutritional practices and the wise choice of food are the foundations on which good health is established. Realizing that habits are formed early in life, it is understandable that emphasis placed on nutrition in elementary grades will have greater probability of success in improving the physical well-being of our citizens.

"Framework for Nutrition Education, a Guide for Elementary Teachers, Grades K-6", is divided into three grade levels, K-2, 3-4, and 5-6. Each section contains concepts and performance objectives that establish a sequential pattern for learning. Some of the concepts are expanded for the different levels which strengthen one's understanding. Other concepts offer different focus to provide variety. A chart of the structure of the concepts follows:

FRAMEWORK FOR NUTRITION EDUCATION
A Guide For Elementary Teachers Grades K - 6

Discovering Food K - 2	Food Choices 3 - 4	Nutrition Trek 5 - 6
I. Sources of Food		
II. Kinds of Food	I. Food Groups	I. Food Nutrients
		II. Digestion of Food
III. Food for Growth and Energy	II. Food at School	III. Effects of Diet
	III. Snack Foods	
IV. Habits of Eating	IV. Food Habits	IV. Food Selection
	V. Food Customs	
	VI. Buying and Selling Food	V. Food Production
		VI. Food Sanitation

CONCEPTS IN EACH SECTION
OF
THE CURRICULUM GUIDE

Learning experiences are suggested for each concept, and evaluations are included with each objective.

A resource page, added at the end of each concept,

INTRODUCTION

is divided into broad categories for resource listings. Space is provided for additional resources which may be found helpful.

Suggestions to the teachers are written in italics and enclosed within parentheses throughout the guide. Space on the back of each page can be used for notes, adding information and ideas concerning each concept.

The bibliography includes a listing of books, pamphlets, films, filmstrips, etc., suggested in the guide, as well as others pertaining to nutrition.

This guide may be used in its entirety or selected portions may be chosen. Learning experiences and activities relating to each subject are interspersed throughout and can be used at the discretion of the teacher when applicable to individual situations and class subject emphasis.

Although the guide has suggested grade levels for expected use, the concepts are readily adaptable to interests and activities of special education classes and senior citizen groups.

The increased awareness of food and the knowledge of nutrition can be made interesting and enjoyable and can be a lesson of lasting value to the learner.

CONTENTS

DISCOVERING FOOD

CONCEPT I. SOURCES OF FOOD. 3

OBJECTIVE-Given a wide choice of foods to examine, the learner will be able to identify the sources of a variety of foods.

CONCEPT II. KINDS OF FOOD. 9

OBJECTIVE-Given a wide choice of foods, the learner will be able to identify varieties, forms, and groups of foods through sight, taste, smell and feel.

CONCEPT III. FOOD FOR GROWTH AND ENERGY. 16

OBJECTIVE-Through discussions and observations, the learner will be able to list three essentials of human growth.

CONCEPT IV. HABITS OF EATING. 23

OBJECTIVE-Through class discussions and demonstrations related to habits of eating, the learner will be able to practice good eating habits as measured by teacher observations and check sheet records.

FOOD CHOICES

CONCEPT I. FOOD GROUPS. 33

OBJECTIVE-After group discussions and individual learning experiences, the learner will be able to list the Four Food Groups, describe the function and the number of servings needed daily from each group to provide an adequate diet.

CONCEPT II. FOOD AT SCHOOL. 38

OBJECTIVE-Given the pattern of a Type A lunch and the pattern for an adequate breakfast, the learner will match the components of the meals with the daily food needs.

OBJECTIVE-After group discussions of desirable characteristics of the cafeteria, the learner will list ways to make it a pleasant place in which to eat.

CONTENTS

CONCEPT III. SNACK FOODS. 43

OBJECTIVE-Given the composition of various foods, the learner will classify foods into nutritious snacks and "junk food" groups.

CONCEPT IV. FOOD HABITS. 46

OBJECTIVE-Given a list of food habits, the learner, through discussions and experiences, will list eating habits to form.

OBJECTIVE-Given patterns of social behavior to practice which relate to eating at home and in public, the learner will demonstrate desirable manners concerning eating.

CONCEPT V. FOOD CUSTOMS. 52

OBJECTIVE-After group discussions and individual reports on foods eaten in our country and in other countries, the learner will plan a day's menu and eat foods typical of various regions.

OBJECTIVE-Given the social customs of people in other countries, the learner will identify five customs associated with their food habits.

CONCEPT VI. BUYING AND SELLING FOOD. 55

OBJECTIVE-After studying advertising techniques, the learner will list three techniques which influence food selection and cost.

NUTRITION TREK

CONCEPT I. FOOD NUTRIENTS. 62

OBJECTIVE-Given the substances contained in the composition of foods, the learner will be able to select six nutrients that supply body needs, identify their functions and match them with their food sources.

CONCEPT II. DIGESTION OF FOOD. 74

OBJECTIVE-After discussing steps in the digestion of food, the learner will be able to state the mechanical and chemical changes that take place as it is utilized by the body.

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CONCEPT III. EFFECTS OF DIET. 79

OBJECTIVE-Given the rules of good health practices, the learner will explain the relationship between nutrition and health in a booklet or notebook.

CONCEPT IV. FOOD SELECTION 82

OBJECTIVE-After studying social, religious and cultural influences on food customs, here and in other countries, the learner will plan a festival around various food customs.

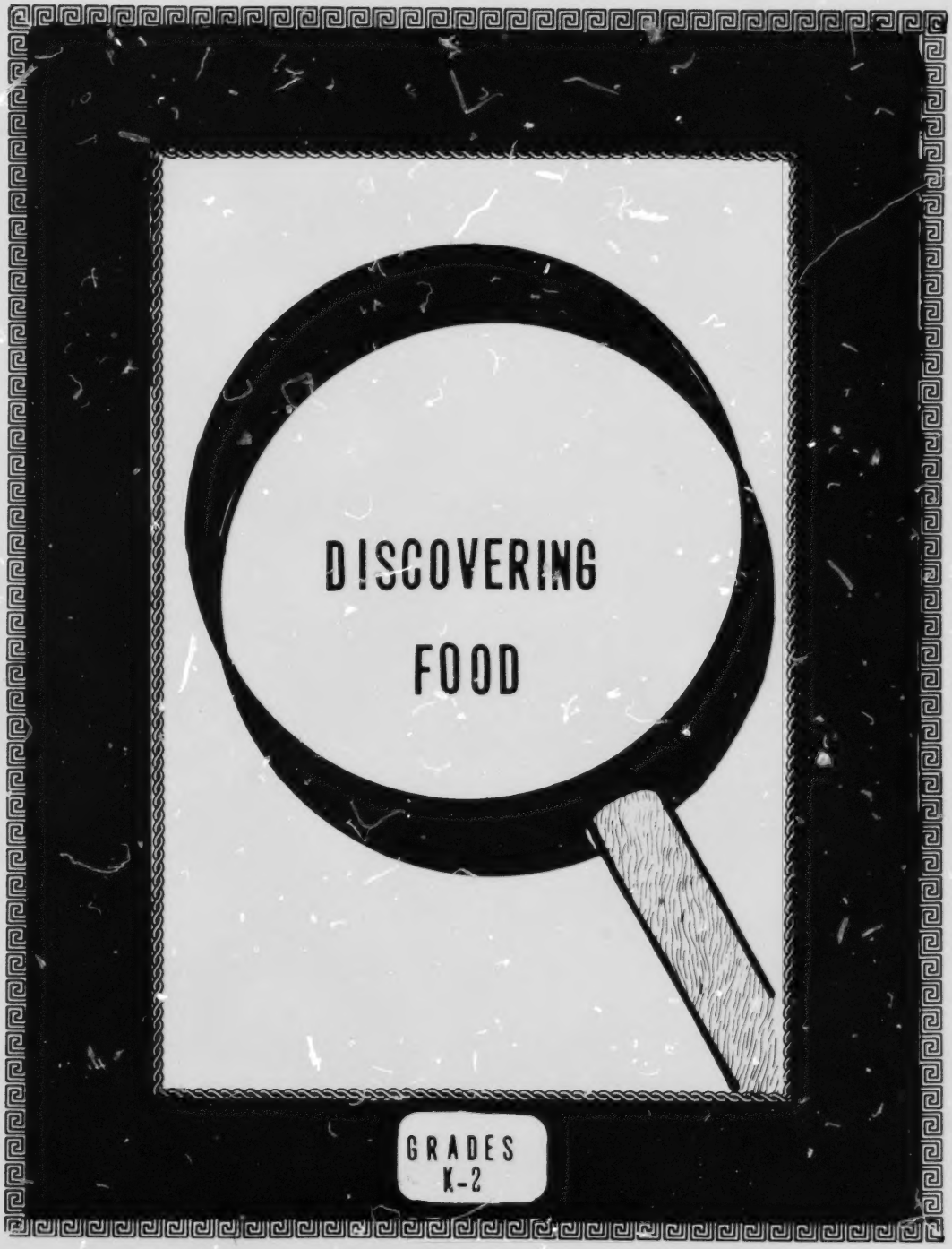
CONCEPT V. FOOD PRODUCTION. 89

OBJECTIVE-Following class discussions and reports on growing and handling food, the learner will list five factors concerning its availability.

CONCEPT VI. FOOD SANITATION. 91

OBJECTIVE-After investigating sanitation practices, the learner will name three ways food can become contaminated and list procedures to prevent these problems.

BIBLIOGRAPHY. 94


DISCOVERING
FOOD
GRADES
K-2

DISCOVERING FOOD

K-2

GRADES K - 2

CONTENTS

CONCEPTS — PAGE

I. SOURCES OF FOOD. 3

OBJECTIVE-Given a wide choice of foods to examine, the learner will be able to identify the sources of a variety of foods.

II. KINDS OF FOOD. 9

OBJECTIVE-Given a wide choice of foods, the learner will be able to identify varieties, forms, and groups of foods through sight, taste, smell, and feel.

III. FOOD FOR GROWTH AND ENERGY. 16

OBJECTIVE-Through discussions and observations, the learner will be able to list three essentials of human growth.

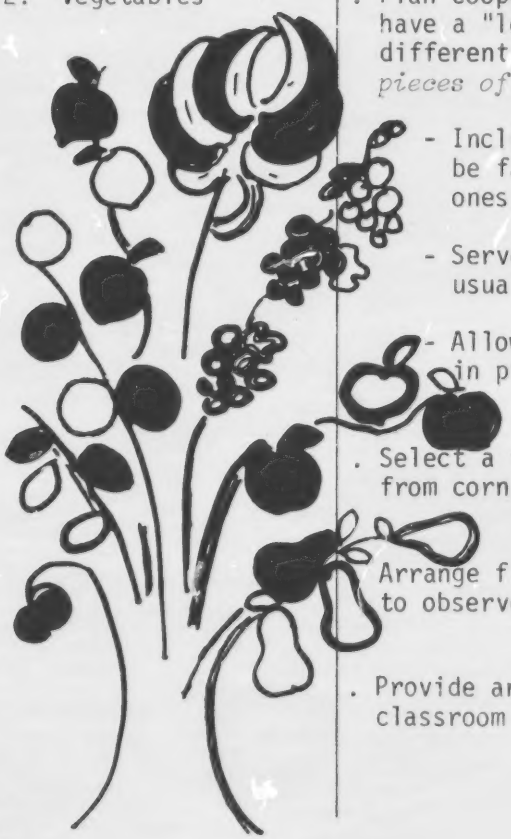
IV. HABITS OF EATING. 23

OBJECTIVE-Through class discussions and demonstrations related to habits of eating, the learner will be able to practice good eating habits as measured by teacher observations and check sheet records.

DISCOVERING FOOD

OBJECTIVE I. GIVEN A WIDE CHOICE OF FOODS TO EXAMINE, THE LEARNER WILL BE ABLE TO IDENTIFY THE SOURCES OF A VARIETY OF FOODS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. SOURCES OF FOOD	. Develop a "fruit tree" or a "vegetable garden" for the bulletin board. Display posters or charts of fruits and vegetables.
	. Explain that all foods come from plants and animals.
A. Plant Sources	. Show examples of some plant foods grown from seed.
1. Fruits	. Plan a vegetable garden encouraging the learners to plant seeds and care for the garden.
	. Make pictures or flowers from various seeds.
2. Vegetables	. Plan cooperatively with school food service manager to have a "lollipop vegetable" tasting party to sample different kinds of vegetables. *(Place bite-size pieces of vegetables on toothpicks, like lollipops.)*
	- Include some vegetables which will be familiar and some more unusual ones.
	- Serve some vegetables which are usually eaten cooked.
	- Allow the learners to participate in preparing the foods when possible.
	. Select a vegetable such as corn and show products made from corn such as corn flakes, corn meal, etc.
	. Arrange for the learners to visit the school kitchen to observe corn bread being made.
	. Provide an opportunity to taste the products in the classroom or cafeteria.



DISCOVERING FOOD

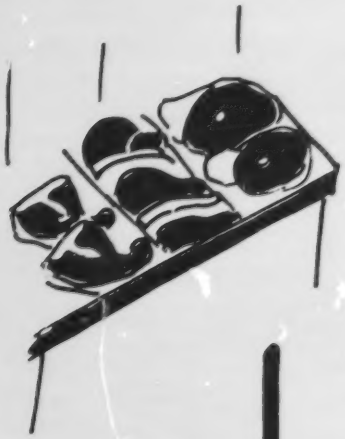
OBJECTIVE I. GIVEN A WIDE CHOICE OF FOODS TO EXAMINE, THE LEARNER WILL BE ABLE TO IDENTIFY THE SOURCES OF A VARIETY OF FOODS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. SOURCES OF FOOD	. Point out that cereal and bread come from vegetable or grain products which are grown on the farm.
	EVALUATION *. Summarize by assembling an assortment of magazines and encouraging learners to find pictures of the different types of fruits and vegetables. Use pictures for a bulletin board display.*
B. Animal Sources	. Use transparencies or pictures of animals to identify those which are sources of meat in the diet.
1. Meats	. Discuss meats that come from animals such as: - Steak-----Beef - Hamburger-Beef - Sausage---Pork - Liver----Beef or Pork - Bacon-----Pork - Ham-------Pork - Chicken---Poultry
2. Poultry	
3. Fish	
4. Eggs	. Familiarize the learner with the fact that people need "body builders" every day.
5. Milk	. Discuss that meat is a body builder and that it may be purchased in many forms.

DISCOVERING FOOD

K-2

OBJECTIVE I. GIVEN A WIDE CHOICE OF FOODS TO EXAMINE, THE LEARNER WILL BE ABLE TO IDENTIFY THE SOURCES OF A VARIETY OF FOODS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
SOURCES OF FOOD	. Display meats in various forms such as fresh, frozen, canned, or dried.
	. Encourage the learners to visit the grocery store with parents and observe meats on display.
	. Point out that milk and eggs are food products that come from animals.
	. Show and discuss posters, "We All Like Milk". *(See Resources)*
	. List the forms in which milk may be purchased.
	. Experiment churning cream to make butter.
	. Taste the butter on crackers or bread and discuss its flavor, nutritive value, and the amount needed daily.
	. Discuss foods which include eggs as an ingredient such as: - French Toast - Scrambled Eggs - Eggnog - Cakes - Breads - Cookies
	. Explain the contribution of eggs to the diet.
	. Observe, if possible, eggs hatching.
	. Show pictures and other art projects made from eggshells and encourage learners to use crushed eggshells to create pictures.

DISCOVERING FOOD

K-2

OBJECTIVE I. GIVEN A WIDE CHOICE OF FOODS TO EXAMINE, THE LEARNER WILL BE ABLE TO IDENTIFY THE SOURCES OF A VARIETY OF FOODS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. SOURCES OF FOOD	. List places in the neighborhood where foods can be obtained and describe foods often sold. - Grocery Store - Drug Store - Farmer's Market - Bakery - Restaurant - Snack Bar
	. Show a film such as "Uncle Jim's Dairy Farm". *(See Resources)*
	. Read stories and discuss activities about farms pointing out the importance of farmers in providing a variety of sources of food.
	. Visit a farm to see how food is grown and harvested or show a film if one is available.
	. Note that the farms, packers and store clerks cooperate to keep food clean and healthy.
	. Read stories about community helpers involved in supplying food.
	. Emphasize that the family can plan to have more and better foods for less money if they increase the family food supply by: - Gardening - Freezing - Hunting - Fishing - Canning - Drying
	. Point out the processes that allow foods to be stored for later use.

DISCOVERING FOOD

OBJECTIVE I. GIVEN A WIDE CHOICE OF FOODS TO EXAMINE, THE LEARNER WILL BE ABLE TO IDENTIFY THE SOURCES OF A VARIETY OF FOODS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. SOURCES OF FOOD	. Show on a large map of the United States the geographical areas where different foods are grown.
	. Point out on a large world map the areas which produce foods used by people in the United States.
	. Visit a grocery store to see the foods that are available from different sources.
	EVALUATION . Summarize the field trip to the grocery store by having students group food pictures according to plant or animal sources.

DISCOVERING FOOD

K-2

RESOURCES

CONCEPT I: SOURCES OF FOOD

BOOKS:

Krauss, Ruth. The Carrot Seed.

Neigoff, Anne. Dinner's Ready.

Whaley, Russell. Basic Health Science-B.

PAMPHLETS - BOOKLETS:

National Dairy Council. "What Will I Be From A to Z?"

CHARTS - POSTERS:

Green Giant Company. "Vegetable Poster Series"

National Dairy Council. "We All Like Milk"

FILMS - FILMSTRIPS:

National Dairy Council. "Uncle Jim's Dairy Farm"

National Dairy Council. "The Big Dinner Table"

MISCELLANEOUS:

Kellogg Company. *Breakfast U.S.A.* (Kit)

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

DISCOVERING FOOD

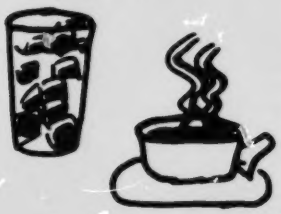
K-2

OBJECTIVE II. GIVEN A WIDE CHOICE OF FOODS, THE LEARNER WILL BE ABLE TO IDENTIFY VARIETIES, FORMS, AND GROUPS OF FOODS THROUGH SIGHT, TASTE, SMELL, AND FEEL.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. KINDS OF FOOD	. Ask the learners to sit in a circle and pass a variety of objects such as a toothbrush, hard cooked egg, piece of fruit, coin, etc., around the group.
A. Varieties *(color, texture, temperature, shape, and flavor)*	. Discuss the following questions: - Which of the objects are foods we eat? - What are the others? - What are their uses?
	. Provide opportunity for the learner to draw a picture of a favorite food and tell the class about it.
1. Color	. Experiment with the making of block prints using cross sections of fruit and vegetables dipped in tempera paints. Talk about the different shapes. Post prints on bulletin board and have learners guess which fruits or vegetables the different shapes represent.
	Plan a rainbow using foods as sources of color. - Blue------Blueberries - Green-----Green Pepper - Yellow----Squash - Orange----Orange - Red-------Apple - Violet----Beets
	. Discuss the many colors found in food.
	. Use pictures to show colorful foods, explaining that attractive foods are more appealing.
	. Provide food pictures for learners to color.
2. Texture	. Discuss the texture of foods eaten at breakfast or lunch in the school cafeteria. Point out that some foods were soft, some were hard, others crunchy or chewy.

DISCOVERING FOOD

OBJECTIVE II. GIVEN A WIDE CHOICE OF FOODS, THE LEARNER WILL BE ABLE TO IDENTIFY VARIETIES, FORMS, AND GROUPS OF FOODS THROUGH SIGHT, TASTE, SMELL, AND FEEL.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. KINDS OF FOOD	
3. Temperature 	. List foods that are better eaten at different temperatures, such as: - HOT: Quick Bread, Soup, Cocoa - COLD: Ice Cream, Salad, Jello
4. Shapes	. Discover the different shapes used to make foods attractive. Prepare a display by using beets or carrots to illustrate different shapes, such as: - Whole - Cubes - Strips - Slices
	. Point out the senses which help us like favorite foods. - Taste - Smell - Feel - Sight
5. Flavors	. Place foods such as chopped onions, lemon wedges, vanilla, chocolate, bacon crumbs, etc., in small covered containers with perforated lids. Identify these foods by odor as each is passed for the learner to smell.
	. Use a picture to locate the tongue's taste buds which help differentiate flavors, such as: - Sweet---------tip of tongue and on sides halfway back - Salt----------tip of tongue and around edges - Bitter--------back of tongue - Sour----------sides of tongue

DISCOVERING FOOD

OBJECTIVE II. GIVEN A WIDE CHOICE OF FOODS, THE LEARNER WILL BE ABLE TO IDENTIFY VARIETIES, FORMS, AND GROUPS OF FOODS THROUGH SIGHT, TASTE, SMELL, AND FEEL.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. KINDS OF FOOD	. Use toothpicks to allow learners to identify different flavors, such as: - Salt - Sugar - Grapefruit Rind - Lemon Slices . Demonstrate the different varieties of food by preparing a tasting party and serving small portion of the food for the learners to taste. Include foods such as: - Foods which are new to learners - Foods learners do not like - Foods easy to work with in the classroom . Discuss the particular food. . Show the food in the natural state. . Observe learners' reactions to foods. . Offer second taste. . Prepare a list of foods which the learners enjoy eating and give to the school food service manager for consideration in menu planning.

EVALUATIONS

. Summarize by reviewing with learners the ways to identify varieties of foods.

. Plan ways to evaluate new foods tried by the learners for a specific length of time.

DISCOVERING FOOD

OBJECTIVE II. GIVEN A WIDE CHOICE OF FOODS, THE LEARNER WILL BE ABLE TO IDENTIFY VARIETIES, FORMS, AND GROUPS OF FOODS THROUGH SIGHT, TASTE, SMELL, AND FEEL.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. KINDS OF FOOD	. Identify foods through feel by placing food items in a mystery box or can. *(Tape the top of a sock to a can or box to keep objects from being seen.)*
B. Forms	. Examine different forms of fruits and vegetables explaining that they may be eaten fresh, frozen, canned or dried. Use foods such as: - Fresh Celery Sticks - Frozen Fruit Juice - Canned Fruit Cocktail - Dried Raisins
1. Fresh 2. Frozen 3. Canned 4. Dried	. Examine or taste milk in various forms including: - Canned - Powdered - Evaporated - Condensed - Fresh - Sweet - Buttermilk - Skim
	. Visit a grocery store or supermarket and observe foods for sale in different forms, such as fresh, frozen, canned, dry, prepared, etc.
	. Prepare and serve a fruit or vegetable in several ways. Use food items such as: - Raw Carrot Strips - Sliced Carrots - Baked Whole Carrots - Carrot Cake - Carrot Bread - Carrot Salad
	. Set up a grocery store using empty containers to show varieties of available foods.
	. Identify a number of foods from a wide and varied selection of food pictures or food models, describing forms in which the foods may be purchased or eaten.
	EVALUATION *. Review with learners the choices available in the forms of foods which may be eaten.*

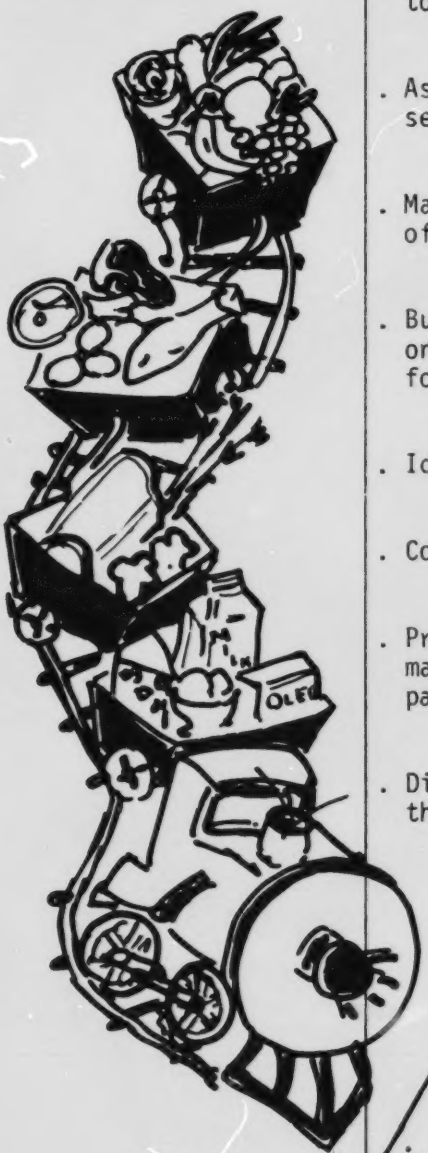
DISCOVERING FOOD

OBJECTIVE II. GIVEN A WIDE CHOICE OF FOODS, THE LEARNER WILL BE ABLE TO IDENTIFY VARIETIES, FORMS, AND GROUPS OF FOODS THROUGH SIGHT, TASTE, SMELL, AND FEEL.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. KINDS OF FOOD	. Discuss the four food groups.
C. Groups	. Emphasize that foods can be placed into these four food groups.
1. Meats and Meat Substitutes	. Introduce fingers game to help learners remember the four basic groups *(each finger represents one group)*. - Milk and Milk Products (1) - Meats (2) - Fruits and Vegetables (3) - Breads and Cereals (4) - Water (Thumb)
2. Fruits and Vegetables	. Use finger game at various times in the cafeteria to evaluate meals or account for foods eaten.
3. Breads and Cereals	. Practice saying the paraphrased nursery rhyme: - One for the muscles *(Milk)* - Two for the glow *(Meat and Eggs)* - Three to make ready *(Vegetables and Fruits)* - Four to grow *(Breads and Cereals)*
4. Milk and Milk Products	. Distribute student leaflets or display large posters of the above nursery rhyme. *(See Resources)*
	. Discuss and display different products made from milk, such as: - Cheese - Ice Cream . Visit a dairy, if possible, to see some of these products being made. . Make booklets, posters or collages of favorite foods.

DISCOVERING FOOD

OBJECTIVE II. GIVEN A WIDE CHOICE OF FOODS, THE LEARNER WILL BE ABLE TO IDENTIFY VARIETIES, FORMS, AND GROUPS OF FOODS THROUGH SIGHT, TASTE, SMELL, AND FEEL.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. KINDS OF FOOD	. Develop a food alphabet or use children's dictionary to classify foods into the basic four food groups.
	. Assist the learner to recognize the written words representing the different foods.
	. Make and post a spelling list developed from the study of foods.
	. Build a nutrition train with engine and four box cars, one for each food group. Place foods or models of food in the correct box car.
	. Identify by name the foods placed in each car.
	. Construct a mobile of the basic four foods.
	. Provide each learner with a basic four food chart or make a chart by cutting out pictures of food and pasting them in groups on cards.
	. Display a wide variety of foods and match them with the corresponding food groups.

EVALUATIONS

. Evaluate by having learners play a game. Teacher assigns a color for each food group. As teacher holds up pictures of food, learner holds up color identifying food group where it belongs.

. Summarize learnings by developing a large bulletin board display for the school cafeteria showing information studied in this section, KINDS OF FOOD.

RESOURCES

CONCEPT II: KINDS OF FOOD

BOOKS:

Boning, Richard A. Words to Eat Series. *(Picto-Cabulary Series)*

Byrd, Oliver, and Others. Health, Level One and Level Two.

Johnston, Harriet. What's in Food?

Richmond, Julius and Others. Health and Growth: Book I and Book II.

PAMPHLETS - BOOKLETS:

National Dairy Council. "Ice Cream for You and Me"

CHARTS - POSTERS:

National Dairy Council.

"Four Food Groups"
"Every Day - Eat the 1-2-3-4 Way"

FILMS - FILMSTRIPS:

MISCELLANEOUS:

American School Food Service Association. *Fun with Foods Coloring Book*

McCutcheon, Linda. *Tasting Party*

National Dairy Council.
Every Day - Eat the 1-2-3-4 Way. (Miniatures)
Food Models

Mystery box can be made by taping a sock top around the top of a can or box which is large enough for a hand to enter.

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

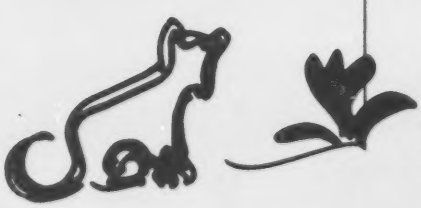
DISCOVERING FOOD

OBJECTIVE III. THROUGH DISCUSSIONS AND OBSERVATIONS, THE LEARNER WILL BE ABLE TO LIST THREE ESSENTIALS OF HUMAN GROWTH.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. <u>FOOD FOR GROWTH AND ENERGY</u> A. Patterns of Growth	. Develop a bulletin board display showing different forms of life, such as: - Plants - Animals - Human Beings . Use the pictures as a spring board for learning about the requirements for all living things. . Encourage each learner to bring in a personal baby picture and a record of birth weight and height. Discuss the following questions. - Who was heaviest? - Who was lightest? - Who was tallest? - Who was shortest? . Weigh and measure each class member. . Determine who is now heaviest, tallest, etc. . Point out that <u>normal</u> growth can occur at different <u>rates</u>. . Discuss reasons why growth occurs at different rates, such as: - Foods Eaten - Age

EVALUATION

. Summarize reasons for different growth rates in all forms of life.

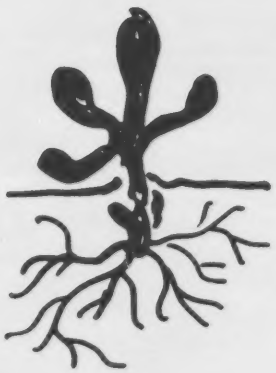


DISCOVERING FOOD

K-2

OBJECTIVE III. THROUGH DISCUSSIONS AND OBSERVATIONS, THE LEARNER WILL BE ABLE TO LIST THREE ESSENTIALS OF HUMAN GROWTH.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. FOOD FOR GROWTH AND ENERGY B. Essentials of Growth	. List and discuss essentials of growth which include: - Food - Water - Sunshine - Air . Plant rapidly growing seed at the edge of a clear glass container so that plant growth can be observed. . Experiment by growing plants with and without fertilizer or plant food. - Turnips - Lima Beans - Mustard - Tomato - Radishes . Compare the growth and appearance of the plants having the following care: - Plant A-----soil, sunlight, water *(twice each week)* - Plant B-----soil, sunlight - Plant C-----soil, water *(twice each week)* keep plant in a dark place - Plant D-----sunlight, distilled water . Interpret the experiment to help learners understand how a plant grows. Ask the following questions: - Can a plant live without light? - Can a plant live without water? - Can a plant live without food? . Stress the fact that soil is a source of food for plants.

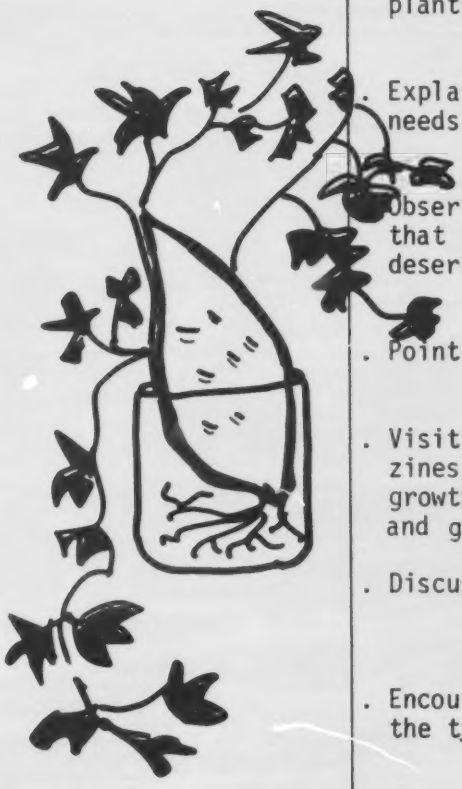


DISCOVERING FOOD

K-2

OBJECTIVE III. THROUGH DISCUSSIONS AND OBSERVATIONS, THE LEARNER WILL BE ABLE TO LIST THREE ESSENTIALS OF HUMAN GROWTH.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. FOOD FOR GROWTH AND ENERGY	. Experiment using a sweet potato to show that it may be grown in water from food stored in the potato by placing the potato in dark area of room. . Visit a nursery or a truck farm to observe different plants and how these are grown from seed. . Explain and observe that different plants have varying needs for water and nutrients. . Observe a cactus or use a picture of one to explain that it can store water and therefore live on the desert. . Point out that some flowers need special soil mixtures. . Visit a zoo or use pictures from coloring book, magazines, etc., to depict different animals, and discuss growth patterns. Compare with growth patterns of boys and girls. . Discuss foods eaten by the animals. . Encourage learners to tell about their pets and explain the types of foods the pets eat. . Share experiences about foods needed by young animals.



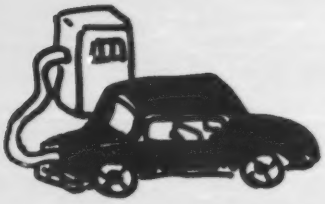
EVALUATION

. Review by having each learner tell three essentials of growth. Make a list to be used on a bulletin board in the classroom or cafeteria of growth essentials.

DISCOVERING FOOD

K-2

OBJECTIVE III. THROUGH DISCUSSIONS AND OBSERVATIONS, THE LEARNER WILL BE ABLE TO LIST THREE ESSENTIALS OF HUMAN GROWTH.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. FOOD FOR GROWTH AND ENERGY C. Food and Energy	. Point out that food gives us energy for work and play. . List action words on the board. - Skip - Hop - Run - Skate - Sweep - Fly - Jump - Push - Dig - Bounce
	. Encourage learners to act out one of the words and let other class members guess which word is being illustrated. . Show a film on food and energy, such as "The Great Food Show". *(See Resources)* . Emphasize that food gives people energy which is needed in order to be active. . Compare energy use for cars, trains, and airplanes. . Determine what happens when they run out of fuel.
	. Encourage learners to pretend they are cars, trains, or airplanes, moving until they run out of fuel. Refuel with fruit juice at break time. Bring wind-up toys to class. Use these to show that even a toy stops when its energy is gone. Compare this with human beings, explaining how food or lack of food affects the body. . Determine what gives the body energy and what happens when the body runs down.

DISCOVERING FOOD

OBJECTIVE III. THROUGH DISCUSSIONS AND OBSERVATIONS, THE LEARNER WILL BE ABLE TO LIST THREE ESSENTIALS OF HUMAN GROWTH.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. FOOD FOR GROWTH AND ENERGY	. Compare the toy's need of energy with the body's need for food.
C. Food and Energy	. Collect and display pictures which depict various states of health considering: - Teeth - Posture - Skin - Nails - Eyes - Hair - Bones - Vitality
	. Relate sayings and stories about food and health, such as "an apple a day keeps the doctor away".
	. List these on the chalkboard or develop into posters.
	. Show films relating food to health.
	. Invite county health nurse to discuss how food affects health and growth patterns.
	. Read a story or use a foods coloring book to further interest in a variety of foods.
	. Give background information explaining that no one kind of food can do everything to keep a person healthy, but, that it's important to eat a variety of food.
	. List foods served at lunch each day for a week.
	. Discuss the variety of foods included in these menus.
	. Invite school food service manager to discuss the lunch pattern and its relation to good health.

DISCOVERING FOOD

OBJECTIVE III. THROUGH DISCUSSIONS AND OBSERVATIONS, THE LEARNER WILL BE ABLE TO LIST THREE ESSENTIALS OF HUMAN GROWTH.

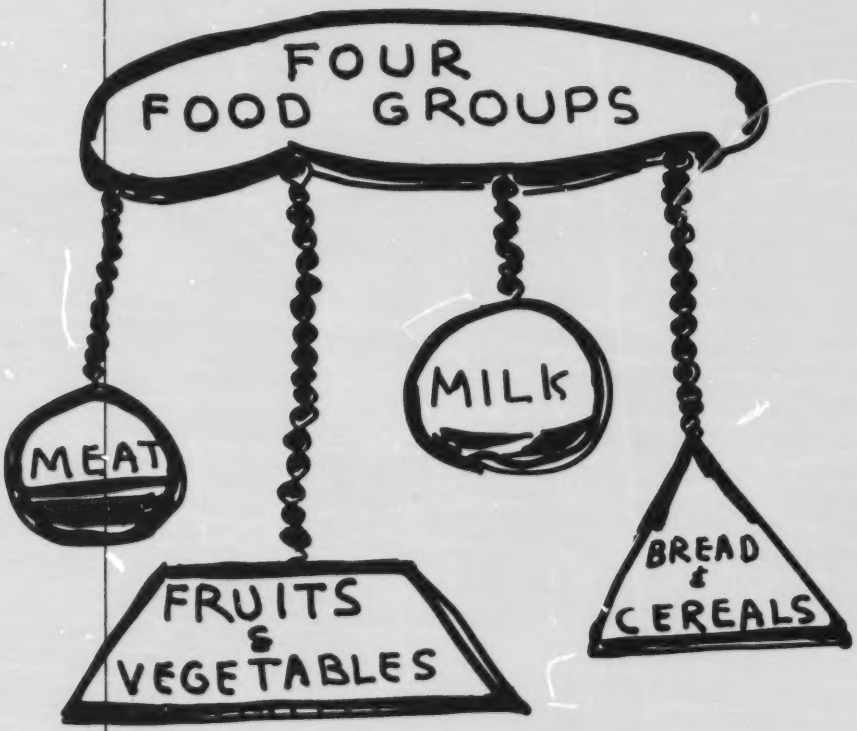
COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. FOOD FOR GROWTH AND ENERGY C. Food and Energy	. Plan a menu with the help of the school food service manager to be used in the school cafeteria.

EVALUATIONS

. Review the four basic food groups.

. Review the physical needs for life.

. Summarize objectives by asking learners to choose from a list of items the essentials of growth.



DISCOVERING FOOD

K-2

RESOURCES

CONCEPT I: SOURCES OF FOOD

BOOKS:

Wnaley, Russell, and Others. Basic Health Science - A.

PAMPHLETS - BOOKLETS:

National Dairy Council. "Animals That Give People Milk"

CHARTS - POSTERS:

Florida Department of Citrus. "Citrus Posters"

National Dairy Council.
"See How They Grow"
"We All Like Milk"

FILMS - FILMSTRIPS:

Alabama Department of Public Health. "Health Films"
Kraft Foods. "The Great Food Show"
National Dairy Council. "You and Your Food"

MISCELLANEOUS:

National Dairy Council. *How I Grow.* (*Growth Records*)

United States Department of Agriculture. *The Good Foods Coloring Book.*

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

DISCOVERING FOOD

K-2

OBJECTIVE IV. THROUGH CLASS DISCUSSIONS AND DEMONSTRATIONS RELATED TO HABITS OF EATING, THE LEARNER WILL BE ABLE TO PRACTICE GOOD EATING HABITS AS MEASURED BY TEACHER OBSERVATIONS AND CHECK SHEET RECORDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. HABITS OF EATING	. Define a habit as something done over and over until it becomes automatic with us.
A. Food Likes and Dislikes	. Discuss how habits can help save time and effort.
	. Point out that eating three meals a day is an important health habit.
	. Discuss factors that affect the foods we eat. - Family Favorites - Friends Likes and Dislikes - Taste of Foods - Texture of Foods
	. Identify favorite foods of class members.
	. Discuss reasons why foods are liked or disliked.
	. Ask school principal to tell how he learned to like a particular food.
	. Use a food chart and/or pictures in the classroom and identify foods children have eaten in the last twenty-four hours.
	. Draw pictures of favorite foods and display in classroom or make a paper collage.
	. Invite the school food service manager to bring samples of a new or unfamiliar dish to the classroom and explain briefly the ingredients used.
	EVALUATION *. Summarize by developing a check sheet to record new foods eaten during the month.*

DISCOVERING FOOD

OBJECTIVE IV. THROUGH CLASS DISCUSSIONS AND DEMONSTRATIONS RELATED TO HABITS OF EATING, THE LEARNER WILL BE ABLE TO PRACTICE GOOD EATING HABITS AS MEASURED BY TEACHER OBSERVATIONS AND CHECK SHEET RECORDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. HABITS OF EATING B. Food as Symbols	. Discuss holidays in which traditional foods are served. - Thanksgiving - Passover - Christmas - Easter . Prepare a bulletin board display of holiday and traditional foods. . Plan a birthday party for all those who have a birthday during the month. - Serve cake and ice cream, a symbol of birthday food. . Discuss mealtime as being one time that family members may be together to share mutual interests. . Show pictures of families eating together. . Make a table decoration or place mat for the family's dining table. . Discuss how food is associated with: - Hospitality - Events - Love - Places - Concern - People - Comfort . Collect food pictures which depict happy situations. . Plan foods to be included in a picnic lunch, or at refreshment time. *EVALUATION* *. Summarize learnings by developing visuals of holiday foods to place in school cafeteria on special occasions.*

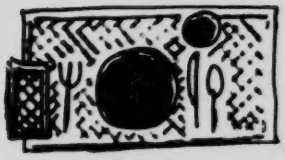
DISCOVERING FOOD

OBJECTIVE IV. THROUGH CLASS DISCUSSIONS AND DEMONSTRATIONS RELATED TO HABITS OF EATING, THE LEARNER WILL BE ABLE TO PRACTICE GOOD EATING HABITS AS MEASURED BY TEACHER OBSERVATIONS AND CHECK SHEET RECORDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. HABITS OF EATING	. Discuss eating at snack time.
C. Snacks	. Explain that the kind of snack selected determines whether it is "good food" or "junk food". . Plan nutritious snacks to eat. . Encourage learners to act as hosts or hostesses and prepare and serve some nutritious snacks for school breaks.
	EVALUATIONS *. Evaluate by recording on a check sheet the learners acceptance of new and different foods.* *. Summarize by making a list on chalkboard of nutritious snacks children enjoy.*
D. Manners Associated with Eating	. Discuss how an attractive place to eat makes eating more enjoyable. . Plan and/or make table or wall decorations for the cafeteria to make it more attractive. . Use illustrations of good table manners or read stories on table manners, such as "What's For Lunch, Charley?". *(See Resources)* . Practice acceptable manners and help children to understand that food means more than nourishment at all age levels.

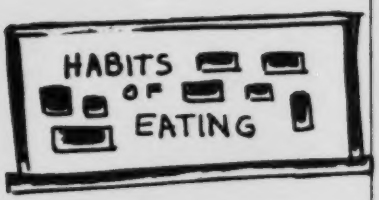
DISCOVERING FOOD

OBJECTIVE IV. THROUGH CLASS DISCUSSIONS AND DEMONSTRATIONS RELATED TO HABITS OF EATING, THE LEARNER WILL BE ABLE TO PRACTICE GOOD EATING HABITS AS MEASURED BY TEACHER OBSERVATIONS AND CHECK SHEET RECORDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. HABITS OF EATING	. Demonstrate the correct placing of: - Knife - Fork - Spoon - Water Glass - Napkin
	. Let learners role play family meal time demonstrating how acceptable table manners may be practiced at home.
	. Write and produce puppet plays on food habits and manners. *(Simple paper bag puppets may be made by putting wads of tightly crumpled paper for the head, tying it off with bright yarn, and making a bow for a necktie. Draw face and cut holes for fingers to come through as arms. Also one-half pint milk cartons may be used as puppets.)*
	. Role play eating in a restaurant. Select items for a meal from a restaurant menu.
	. Plan and act out "let's pretend" skits and games to illustrate accepted manners.
	. Use tape recorder to record role playing and skits on manners. Play these for the learners' review.
	. Practice and record on a check sheet suggested behavior patterns while eating at school including: - Be courteous to teachers and others. - Sit properly at the cafeteria table. - Keep place in line and avoid pushing and shoving. - Use the magic words "please" and "thank you" generously. - Take soiled dishes back to dish window according to rules. - Leave your space at the table clean after eating. - Keep your voice low at mealtime. - Take small bites. - Chew with mouth closed.

DISCOVERING FOOD

OBJECTIVE IV. THROUGH CLASS DISCUSSIONS AND DEMONSTRATIONS RELATED TO HABITS OF EATING, THE LEARNER WILL BE able TO PRACTICE GOOD EATING HABITS AS MEASURED BY TEACHER OBSERVATIONS AND CHECK SHEET RECORDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. HABITS OF EATING	- Do not talk with food in your mouth. - Use your napkin.
	*EVALUATION* *. Summarize by having students develop bulletin board displays for cafeterias on habits of eating.*
E. Cleanliness Associated with Eating	. Explain that cleanliness is an important health rule that is associated with eating. . List ways individuals keep clean, such as: - Wearing clean clothes *(under and outer)* - Taking bath often - Shampooing hair often - Cleaning fingernails daily - Brushing teeth after meals - Washing hands before handling food - Washing hands after using the toilet . Explain how germs are spread from hands. . Demonstrate this by making slides to examine under a microscope. . Determine ways food and utensils are soiled, including - Being dropped on floor - Handled by others - Used by others

DISCOVERING FOOD

OBJECTIVE IV. THROUGH CLASS DISCUSSIONS AND DEMONSTRATIONS RELATED TO HABITS OF EATING, THE LEARNER WILL BE ABLE TO PRACTICE GOOD EATING HABITS AS MEASURED BY TEACHER OBSERVATIONS AND CHECK SHEET RECORDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. HABITS OF EATING	. Explain that fruits and vegetables need to be washed thoroughly before eating to remove germs, dirt and sprays. . Plan and develop an individual chart or check sheet to record daily cleanliness and health habits.

EVALUATION

. Summarize ways cleanliness affects one's habits of eating.

. Use check sheet and record health habits for a two-week period of time.

DISCOVERING FOOD

RESOURCES

CONCEPT IV: HABITS OF EATING

BOOKS:

Byrd, Oliver. Health-Level One.
Carroll, Lewis. Alice in Wonderland.
Hodges, Margaret. What's For Lunch Charley?
Lee, Tina. Manners to Grow On.
Richmond, Julius. Health and Growth, Book I.

PAMPHLETS - BOOKLETS:

CHARTS - POSTERS:

FILMS - FILMSTRIPS:

MISCELLANEOUS:

National Dairy Council. *Food Models.*

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

GRADES
3—4

FOOD CHOICES

3-4

Grades 3 - 4

CONTENTS

CONCEPTS	PAGE
I. FOOD GROUPS.	33
OBJECTIVE-After group discussions and individual learning experiences, the learner will be able to list the Four Food Groups, describe the function and the number of servings needed daily from each group to provide an adequate diet.	
II. FOOD AT SCHOOL.	38
OBJECTIVE-Given the pattern of a Type A lunch and the pattern for an adequate breakfast, the learner will match the components of the meals with the daily food needs.	
OBJECTIVE-After group discussions of desirable characteristics of the cafeteria, the learners will list ways to make it a pleasant place in which to eat.	
III. SNACK FOODS.	43
OBJECTIVE- Given the composition of various foods, the learner will classify foods into nutritious snacks and "junk food" groups.	
IV. FOOD HABITS.	46
OBJECTIVE-Given a list of food habits, the learner, through discussions and experiences, will list eating habits to form.	
OBJECTIVE-Given patterns of social behavior to practice which relate to eating at home and in public, the learner will demonstrate desirable manners concerning eating.	

FOOD CHOICES

3-4

Grades 3 - 4

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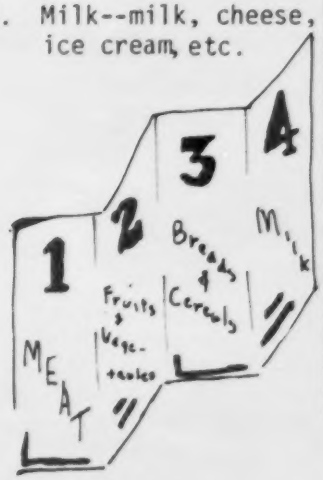
CONCEPTS	PAGE
V. FOOD CUSTOMS.	52
OBJECTIVE-After group discussions and individual reports on foods eaten in our country and in other countries, the learner will plan a day's menu and eat foods typical of various regions.	
OBJECTIVE-Given the social customs of people in other countries, the learner will identify five customs associated with their food habits.	
VI. BUYING AND SELLING FOOD.	55
OBJECTIVE-After studying advertising techniques, the learner will list three techniques which influence food selection and cost.	

FOOD CHOICES

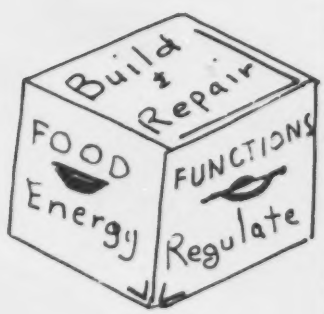
OBJECTIVE I. AFTER GROUP DISCUSSIONS AND INDIVIDUAL LEARNING EXPERIENCES, THE LEARNER WILL BE ABLE TO LIST THE FOUR FOOD GROUPS, AND DESCRIBE THE FUNCTION AND THE NUMBER OF SERVINGS NEEDED DAILY FROM EACH GROUP TO PROVIDE AN ADEQUATE DIET.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
FOOD GROUPS	
A. Classification of Four Food Groups	. Ask learners to draw pictures or find magazine pictures of foods which they like to eat. Place pictures under the appropriate basic four food group on a developmental bulletin board.
1. Meat--beef, pork, fish, cheese, eggs, dried peas, beans, peanut butter, etc.	. Play nutrition games to strengthen learning of the four food groups.
2. Fruits and Vegetables--citrus fruits, berries, apples, pears, bananas, greens, potatoes, beans, corn, tomatoes, etc.	. Make and paint models of the food groups using the "Goop Recipe". *(See Resources)* . Invite the health nurse or a dietitian to discuss the importance of eating foods from the daily four food groups. . Read nutrition books. *(See Resources)*
3. Breads and Cereals--rolls, cornbread, cereals, cakes, cookies, spaghetti, rice, grits, etc.	. Provide browsing time during class for learners to read nutrition reference materials.
4. Milk--milk, cheese, ice cream, etc.	. Use films to help learners understand about themselves and their physical needs, such as "Food, Energy and You". *(See Resources)*
	. Plan a vocabulary study to learn to spell and define nutritional terms used in this unit, including: - Protein - Carbohydrates - Fats - Minerals - Vitamins - Calories - Enriched - Restored - Energy - Roughage - Cellulose

FOOD CHOICES

3-4

OBJECTIVE I. AFTER GROUP DISCUSSIONS AND INDIVIDUAL LEARNING EXPERIENCES, THE LEARNER WILL BE ABLE TO LIST THE FOUR FOOD GROUPS, AND DESCRIBE THE FUNCTION AND THE NUMBER OF SERVINGS NEEDED DAILY FROM EACH GROUP TO PROVIDE AN ADEQUATE DIET.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD GROUPS B. Functions of Food Groups	. Collect and use examples of plastic fruits, vegetables, meats, etc., or colored pictures of foods for an interest approach to help the learners understand the wide variety of foods available.
1. Meat and Meat Substitutes--growth and energy	. Develop a card game. Place pictures of fruits and vegetables on flash cards. Have each learner select a card and describe the food pictured. Encourage the others to guess the name of this particular food.
2. Fruits and Vegetables--regulate and energy	. Show filmstrips and/or use transparencies of the Basic Food Groups. . Use printed posters on the Basic Four for class discussions.
3. Breads and Cereals-energy and growth	. Discuss the four food groups needed daily for an adequate diet, including: - 1. Meat Group *(Poultry, fish, meat, eggs, dried beans and peas, and nuts)* - 2. Fruit and Vegetable Group - 3. Bread and Cereal Group *(Bread, rolls, loaf, cornbread, breakfast cereal, spaghetti, macaroni, noodles, rice, grits, pastry, cookies, cake)* - 4. Milk Group *(Milk, cheese, ice cream, butter)*
4. Milk and Milk Products--growth, regulate and energy 	. Use other nutrition games to reinforce learnings on Basic Four Food groups. . Explain that meats have a high protein content; are used for body building and fuel; supply fats, minerals and vitamins. . Stress the fact that fruits and vegetables supply large amounts of minerals to regulate body activities.

FOOD CHOICES

3-4

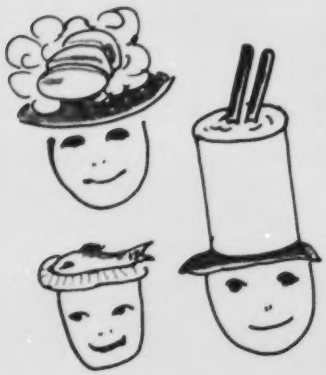
OBJECTIVE I AFTER GROUP DISCUSSIONS AND INDIVIDUAL LEARNING EXPERIENCES, THE LEARNER WILL BE ABLE TO LIST THE FOUR FOOD GROUPS, DESCRIBE THE FUNCTION AND THE NUMBER OF SERVINGS NEEDED DAILY FROM EACH GROUP TO PROVIDE AN ADEQUATE DIET.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD GROUPS	. Explain that vegetables and fruits also supply sugar for energy, and roughage or cellulose for digestion.
	. Point out that foods in the bread and cereal group are mainly classified as carbohydrates which are excellent sources of fuel and energy.
	. Discuss that whole grain or enriched breads and cereals contain protein, minerals and vitamins.
	. Show charts indicating that milk and milk products supply the body with generous amounts of body building materials, proteins and minerals.
	. Visit a dairy to see how milk is produced.
	. Encourage learners to write a note of thanks to the dairy.
	. Draw a mural to use in the classroom showing how milk is processed and transported.
	. Use comparison charts, transparencies or wall charts to compare the nutritive value of milk and carbonated drinks.
	. Explain that a diet is judged for adequacy based on the day's food intake rather than on one meal.
	. Relate how food choices affect health and energy.
	. Determine the reasons for the differences in energy needs, such as body size, physical activity, and growth rate and age.

FOOD CHOICES

3-4

OBJECTIVE I. AFTER GROUP DISCUSSIONS AND INDIVIDUAL LEARNING EXPERIENCES, THE LEARNER WILL BE ABLE TO LIST THE FOUR FOOD GROUPS, DESCRIBE THE FUNCTION AND THE NUMBER OF SERVINGS NEEDED DAILY FROM EACH GROUP TO PROVIDE AN ADEQUATE DIET.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD GROUPS	. Identify differences in the amounts of foods eaten.
	. Discuss energy needs for football players, growing girls, older, inactive persons, physical education teachers, etc.
	. Use food models placing the foods into groups according to what they provide the body.
	. Keep a record of foods eaten. Determine which foods should be added to the diet and develop a plan to include these needed foods.
C. Daily Servings from Food Groups	. Devise simple costumes or hats to illustrate the food groups.
1. Meat *(two or more servings)*	. Write a story about needs for a variety of foods from the basic food groups to share with parents or friends.
2. Fruits and Vegetables *(four or more servings)*	. Promote pupil planning of a picnic or lunch to include foods from each of the food groups. Invite parents to attend.
3. Breads and Cereals *(four or more servings)*	*EVALUATION* *. Develop a skit or puppet show for other groups explaining and summarizing what has been learned about the Four Food Groups.*
4. Milk *(three to five servings)*	

FOOD CHOICES

3-4

RESOURCES

CONCEPT I: FOOD GROUPS

BOOKS:

Byrd, Oliver. Health, Level Three, Level Four.

Suess, Dr. Green Eggs and Ham.

Zim, Herbert. Your Food and You.

PAMPHLETS - BOOKLETS:

National Dairy Council.
"How Your Body Uses Food"
"How Milk is Produced"

Dennison's Booklet No. 556

CHARTS - POSTERS:

David C. Cook Publishing Company. "Food and Nutrition Teaching Pictures"

Florida Department of Citrus. "Get Aboard the Good Ship Vitamin C"

National Dairy Council.
"Four Food Groups"
"Milk Made the Difference"

FILMS - FILMSTRIPS:

American Baker's Association. "What's In Our Food?"
Cereal Institute. "Project A.M." (filmstrip)
Eyegate House. "Right Foods Help Health" (Filmstrip)
Filmstrip House, Inc. "Nutrition" (set of four filmstrips)
Perennial Education, Inc. (Newenhouse) "Food, Energy and You"
National Dairy Council.
"The Big Dinner Table"
"Uncle Jim's Dairy Farm"

MISCELLANEOUS:

American School Food Service Association. *"Yummy Rummy"*
Nasco. *"Life-Form Food Models"*
National Dairy Council.
"Basic Four Transparencies"
"Dairy Farm Panarama Kit"

Goop Recipe: *Mix 1 cup cornstarch, ½ cup cold water.*
Cook until clear.
Combine 2 cups salt, 2/3 cup water.
Add to starch mixture.
Store in covered jar.

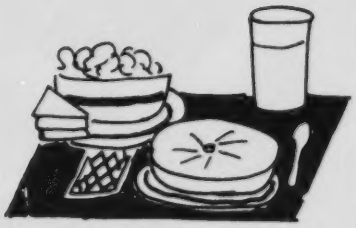
FOOD CHOICES

OBJECTIVE II. A. GIVEN THE PATTERN OF A TYPE A LUNCH AND THE PATTERN FOR AN ADEQUATE BREAKFAST, THE LEARNER WILL MATCH THE COMPONENTS OF THE MEALS WITH THE DAILY FOOD NEEDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. FOOD AT SCHOOL	
A United States Department of Agriculture Approved Meal Patterns	. Display posters or use food models to depict typical meals served to children. - Breakfast - Lunch/dinner - Dinner/supper
1. Type A Lunch	. Interpret the difference in lunch and dinner. State that dinner denotes the heaviest meal of the day, and that lunch or supper is a lighter meal.
	. Discuss the part that each meal plays in helping the body to grow, go and glow.
	. Emphasize that a Type A lunch served at school is the nutritional pattern set by the United States Department of Agriculture.
	. Explain that these USDA lunch requirements help protect the nutritional well-being of school children and include the following: - Protein *(two ounces)* - Fruit and/or Vegetables *(3/4 cup, at least two kinds)* - Whole Milk, Buttermilk, Skim Milk, Chocolate Milk or Low Fat Milk *(½ pint)* - Butter or Fortified Margarine *(1 teaspoon)* - Whole Grain or Enriched Bread *(1 slice)*
	. Point out that the USDA lunch provides at least one-third of the daily food needs of students ten to twelve years of age.
	. Discuss the school menus served each day for a week.

FOOD CHOICES

OBJECTIVE II. A. GIVEN THE PATTERN OF A TYPE A LUNCH AND THE PATTERN FOR AN ADEQUATE BREAKFAST, THE LEARNER WILL MATCH THE COMPONENTS OF THE MEALS WITH THE DAILY FOOD NEEDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. FOOD AT SCHOOL	
	. Check menus to see if they include the four food groups.
	. Use a Type A poster and have students work in groups to plan menus they would like to eat in the school cafeteria.
	. Study and display menus planned by the children.
	. Ask cooperation of the school food service manager in preparing and serving some student planned menus.
2. Breakfast	. Point out that the breakfast should include approximately one-fourth of the day's nutritive requirements and consists of the following: - Milk *(½ pint)* - Fruit or Full Strength Fruit or Vegetable Juice *(½ cup)* - Whole Grain or Enriched Bread *(1 slice)*, or - Whole Grain Cereal *(3/4 cup)*
	. Read stories which show that children who have not had breakfast do not accomplish as much as students who have had breakfast.
	. Ask students to discuss what they ate for breakfast.
	Make a class survey of breakfast habits.
	. Develop plans to improve breakfast for the next day.
	. Set up breakfast displays using food models.
	. Make mobiles of breakfast foods.

FOOD CHOICES

OBJECTIVE II. A. GIVEN THE PATTERN OF A TYPE A LUNCH AND THE PATTERN FOR AN ADEQUATE BREAKFAST, THE LEARNER WILL MATCH THE COMPONENTS OF THE MEALS WITH THE DAILY FOOD NEEDS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. FOOD AT SCHOOL	. Organize a "Better Breakfast" Club. . Invite the school food service manager to discuss how she plans menus in order to meet the USDA requirements. *EVALUATION* *. Develop a bulletin board for the cafeteria to show the correlation of each food on the menu to the daily food needs of the four food groups.*

FOOD CHOICES

3-4

OBJECTIVE II. B. AFTER GROUP DISCUSSIONS OF DESIRABLE CHARACTERISTICS OF THE CAFETERIA, THE LEARNERS WILL LIST WAYS TO MAKE IT A PLEASANT PLACE IN WHICH TO EAT.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
FOOD AT SCHOOL	
B. Cafeteria Atmosphere	. Discuss ways to make the cafeteria attractive such as: - Colorful Tables and Chairs - Table Decorations - Mobiles - Posters - Murals
	. Point out that behavior of students is a determining factor in having a pleasant atmosphere in which to eat.
	. Develop a check sheet of cafeteria rules to record behavior of different classes *(this might be a school wide activity and some recognition could be given the class receiving the highest score)*.
	. Review ways to improve food service for health, safety and enjoyment.
	EVALUATION *. Initiate the formation of a student nutrition committee to plan activities involving students in improving cafeteria atmosphere.*

3-4

RESOURCES

CONCEPT II: FOOD AT SCHOOL

BOOKS:

PAMPHLETS - BOOKLETS:

Association for Childhood Education International. "Nutrition and Intellectual Growth in Children"

United States Department of Agriculture. "A Menu Planning Guide for Breakfast at School"

CHARTS - POSTERS:

Florida Department of Citrus. "Breakfast Charts"

National Dairy Council. "A Guide to Good Eating"
"What Did You Have For Breakfast?"

United States Department of Agriculture. "Type A Poster"

FILMS - FILMSTRIPS:

Cereal Institute. "Skimpy and a Good Breakfast"
"Alexander's Breakfast Secret"

MISCELLANEOUS:

Cling Peach Advisory Board. *"Nutrition Oriented Menus"*

Nasco. *"Life Form Food Models"*

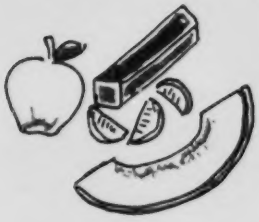
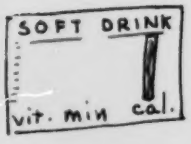
National Dairy Council. *"Food Models"*

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

FOOD CHOICES

3-4

OBJECTIVE III. GIVEN THE COMPOSITION OF VARIOUS FOODS, THE LEARNER WILL CLASSIFY FOODS INTO NUTRITIOUS SNACKS AND JUNK FOOD GROUPS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. SNACK FOODS	
A. Types of Snack Food	. Show film strip on snacks.
	. Serve snacks having selections from a variety of snack foods, including some unfamiliar items.
1. Nutritious Snacks	. Ask learners to list favorite snacks. Discuss the food group to which each snack belongs.
	. List snacks not in the basic food groups.
	. Clarify the fact that snacks contribute to the daily food intake.
2. "Junk Foods"-- Empty Calorie Snacks	. Show comparison cards or other means to indicate empty calories of the "junk foods", giving them this name.
	. Point out the empty calories found in "junk foods" may add unwanted pounds to overweight individuals.
	. Use food models or appropriate pictures to illustrate nutritious snacks, such as:
	- Carrot Strips - Milk - Crackers - Bread - Peanut Butter - Apple Wedge or other Fruit - Cheese - Ice Cream - Fruit Juice
	. Assemble a class collection of pictures of nutritious snacks to use on bulletin boards.
	. Encourage learners to bring fruits, raw vegetables, or a sandwich for a snack time at school.

FOOD CHOICES

OBJECTIVE III. GIVEN THE COMPOSITION OF VARIOUS FOODS, THE LEARNER WILL CLASSIFY FOODS INTO NUTRITIOUS SNACKS AND JUNK FOOD GROUPS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. SNACK FOODS	
	. Plan a snack food tasting party that would show different sensory experiences, such as: HOT: - Tomato Juice; - Cranberry Juice COLD: - Frozen Fruit Juice Sticks; - Ice Cream HARD: - Apple Wedge; - Carrot Strip SOFT: - Boiled Custard; - Applesauce SALTY: - Nuts; - Cereal Snacks BLAND: - Celery Stick
B. Preparing Snacks	. Point out that nutritious snacks are easy to prepare. . Demonstrate the preparation of simple snacks, such as: - Fruit Sections - Raw Vegetables - Celery or Crackers with Peanut Butter - Milk and Cookies . Prepare mid-morning or mid-afternoon snacks in the classroom, using suggestions from the demonstrations.
	EVALUATION *. Summarize the discussion on snack foods by making a bulletin board of nutritious snacks for the cafeteria.*

FOOD CHOICES

RESOURCES

CONCEPT III. SNACK FOODS

BOOKS:

Whaley, Russell. Basic Health Science - C.

PAMPHLETS - BOOKLETS:

Florida Department of Citrus. "Snack Light - Snack Right"

National Dairy Council. "Chance or Choice"

CHARTS - POSTERS:

Florida Department of Citrus. "Snack Light - Snack Right"

National Dairy Council. "Your Snacks: Chance or Choice"

FILMS - FILMSTRIPS:

National Dairy Council. "Your Food, Chance or Choice" (filmstrip)

Society for Visual Education. "The Fairy Ring Singer"

MISCELLANEOUS:

National Dairy Council. *"Comparison Cards"*
"Food Models"

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

FOOD CHOICES

3-4

OBJECTIVE IV. A. GIVEN A LIST OF FOOD HABITS, THE LEARNER, THROUGH DISCUSSIONS AND EXPERIENCES, WILL LIST EATING HABITS TO FORM.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD HABITS	
A. Food Habits Affecting Health, Appearance and Disposition	. Define *habit* and discuss ways habits are formed. . Point out that many habits are desirable and necessary while others may be less desirable to cultivate. . Determine what affects our habits of eating, such as: - Family Customs - Available Foods - Likes, Dislikes, etc. . Ask each student to answer the question, "Why do you eat food?". . Discuss the answers as they involve health, appearance and disposition. . Recall the food groups that help to keep us well. . Examine pictures of people whose appearances have been affected by lack of certain foods or of overeating. . Determine that a balance of exercise and food intake is necessary to maintain an attractive body weight. . Discuss how you feel when you are hungry. . Have one of the students describe how his or her baby sister or brother acts when he is hungry. Explain how the baby acts when he's fed and happy once again.

FOOD CHOICES

OBJECTIVE IV. A. GIVEN A LIST OF FOOD HABITS, THE LEARNER, THROUGH DISCUSSIONS AND EXPERIENCES, WILL LIST EATING HABITS TO FORM.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD HABITS	. Sponsor tasting parties using foods in each food group to encourage pupils to try new foods. . Make and keep a booklet showing favorite foods and those you are learning to like. *EVALUATION* *. Summarize the discussions of habit formation by adding to the booklet a list of habits you want to form.*

FOOD CHOICES

OBJECTIVE IV. B. GIVEN PATTERNS OF SOCIAL BEHAVIOR TO PRACTICE WHICH RELATE TO EATING AT HOME AND IN PUBLIC, THE LEARNER WILL DEMONSTRATE DESIRABLE MANNERS CONCERNING EATING.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD HABITS	
B. Food Habits Concerning Social Behavior and Manners	. Develop a bulletin board or posters as an interest approach on social graces with a title that is catchy. *(One possibility might be the use of cartoons of children illustrating various social graces such as those found in If You Please.)* *(See Resources)*
	. Discuss what is meant by social graces and social behavior. Explain that these practices are expected of people at all ages.
	. Read books about social behavior.
	. Role play situations showing social behavior patterns identified with food customs.
	. Discuss how manners and etiquette influence the way one feels about others. Stress the need to learn and practice manners and etiquette with family and friends, acquaintances and school associates.
	. Explain that boys and girls need to practice rules of social behavior to help them get along with others.
	. Point out that behavior in social situations is not inherited or can't be bought, it is learned.
	. Discuss and study everyday manners and social behavior as listed below: - Manners at Home - Manners at School - Table Manners - Manners When Shopping - Telephone Manners

FOOD CHOICES

3-4

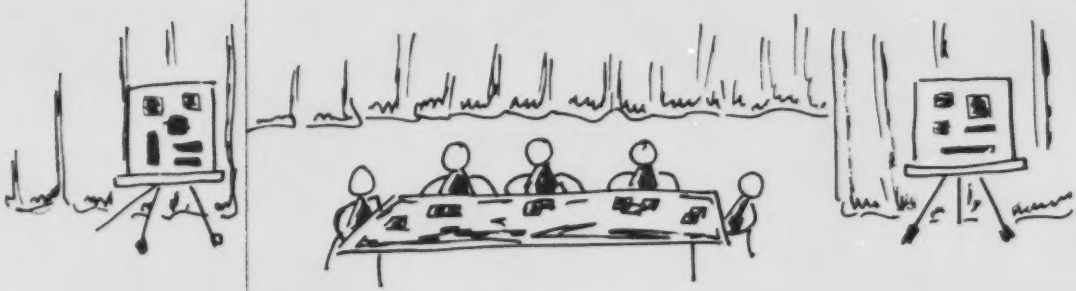
OBJECTIVE IV. B. GIVEN PATTERNS OF SOCIAL BEHAVIOR TO PRACTICE WHICH RELATE TO EATING AT HOME AND IN PUBLIC, THE LEARNER WILL DEMONSTRATE DESIRABLE MANNERS CONCERNING EATING.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD HABITS	
	. Use role playing or dramatizations, having students portray situations where manners are in evidence.
	. Develop a simple survey form for the students to use in conducting a survey in select elmentary classes on the topic of "Manners Most Appreciated In Others At School and Home".
	. List on the chalkboard under two columns *(home and school)* the manners we'd like our family members and friends to help us develop.
	. Ask each child to select several manners from the lists on the chalkboard which he or she feels a need to improve. Encourage the learners to give special attention to these during a designated week.
	. Use a check sheet to record daily progress.
	. Discuss how mealtime at school is an ideal time to teach manners, the art of pleasant table conversation, and the skill of being a host, hostess or guest at a meal.
	. Plan a series of posters, charts or a bulletin board concerning table manners and manners for children at school. Divide students into committee groups and let them plan and develop their ideas to be shared with the other students in the school. Display these when finished in the school cafeteria or on a hall bulletin board. Consider developing this activity into a poster contest to gain more interest.

FOOD CHOICES

OBJECTIVE IV. B. GIVEN PATTERNS OF SOCIAL BEHAVIOR TO PRACTICE WHICH RELATE TO EATING AT HOME AND IN PUBLIC, THE LEARNER WILL DEMONSTRATE DESIRABLE MANNERS CONCERNING EATING.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD HABITS	. Develop a panel discussion consisting of the school food service manager, a teacher, students, and a parent having them give their views on what manners they notice in others at mealtime. . Encourage older students to help younger students with cafeteria etiquette, cafeteria routines, such as waste disposal, tray stacking, etc.



EVALUATION

. Summarize this unit of study on social graces and behavior by giving an assembly program for students in the school. Use the posters, charts, etc., as part of this program.

FOOD CHOICES

RESOURCES

CONCEPT IV. FOOD HABITS

BOOKS:

Allen and Bridges. If You Please.

Lee, Tina. Manners to Grow on.

Robinett, Ralph. Hot Corn Muffins.

PAMPHLETS - BOOKLETS:

CHARTS - POSTERS:

FILMS - FILMSTRIPS:

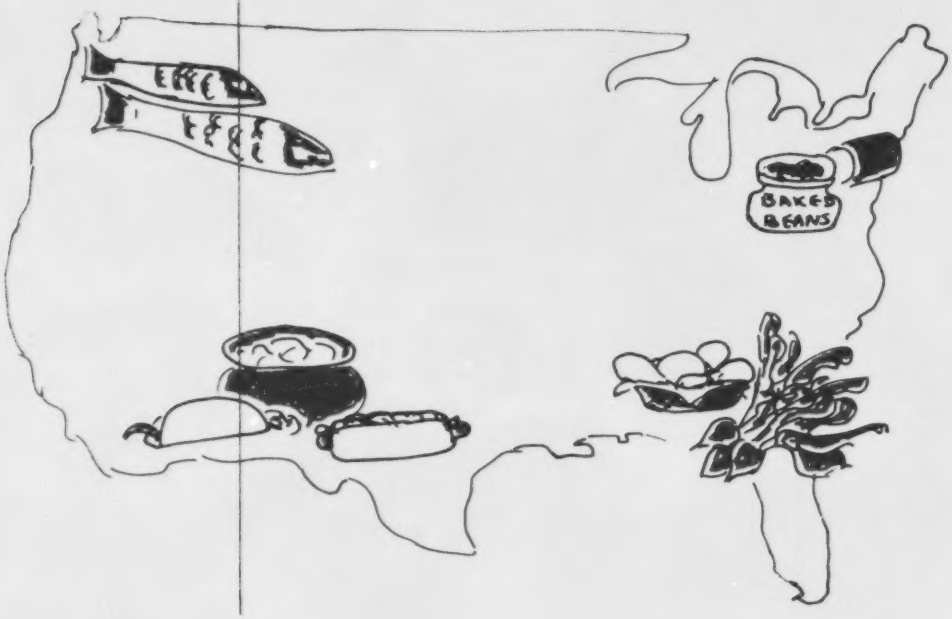
MISCELLANEOUS:

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

FOOD CHOICES

OBJECTIVE V. A. AFTER GROUP DISCUSSIONS AND INDIVIDUAL REPORTS ON FOODS EATEN IN OUR COUNTRY AND IN OTHER COUNTRIES, THE LEARNER WILL PLAN A DAY'S MENU AND EAT FOODS TYPICAL OF VARIOUS REGIONS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
V. FOOD CUSTOMS	
A. Food Habits of Regional, Ethnic and Religious Groups	. Discuss regions in our country which are associated with certain foods, such as: - New England--Baked Beans, Clam Chowder - South--Fried Chicken, Grits, Collard Greens, Sweet Potato Pie - West--Tacos, Hot Dogs, Camp Stew . Report on the origin of food habits, preferences and their relationship to ethnic, religious, and regional groups. . Plan with the food service manager to include foods from different segments of society, (a day in which "Soul Food" would be served might follow a study of Black Culture).



FOOD CHOICES

3-4

OBJECTIVE V. B. GIVEN THE SOCIAL CUSTOMS OF PEOPLE IN OTHER COUNTRIES, THE LEARNER WILL IDENTIFY FIVE CUSTOMS ASSOCIATED WITH THEIR FOOD HABITS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
V. FOOD CUSTOMS	
B. Geographical Differences	. Explain that foods eaten by people in different countries are not the same.
	. Set up food displays representative of other countries.
	. Consult members of the class or faculty or people in the community who have lived in a foreign country as to the food customs there. Ask them to share their experiences with the class.
	. Collect pictures of people from the foreign countries being studied and observe characteristics of dress.
	. List food customs in other countries.
	. Report on foods eaten by the people in the countries being studied.
	. Identify eating procedures in other countries, including use of utensils, dishes, etc.
	. Study ways in which these people prepare their foods.

EVALUATION

. Plan a "Foreign Country Day".

- *Plan, prepare and serve foods eaten by the people.*
- *Develop displays of artifacts, costumes and household items.*
- *Perform dances or rituals indicative of the culture.*

FOOD CHOICES

RESOURCES

CONCEPT V. FOOD CUSTOMS

BOOKS:

PAMPHLETS - BOOKLETS:

CHARTS - POSTERS:

National Dairy Council. "What Did You Have For Breakfast This Morning"

FILMS - FILMSTRIPS:

National Dairy Council. "The Big Dinner Table"

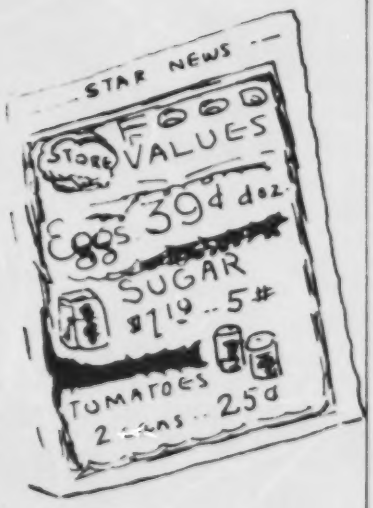
MISCELLANEOUS:

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

FOOD CHOICES

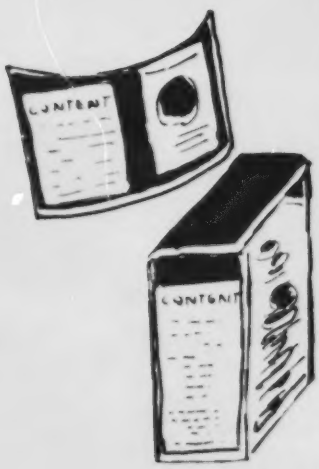
3-4

OBJECTIVE VI. AFTER STUDYING ADVERTISING TECHNIQUES, THE LEARNER WILL LIST THREE TECHNIQUES WHICH INFLUENCE FOOD SELECTION AND COST.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
VI. BUYING AND SELLING FOOD	
A. Advertising	. List foods bought recently, and analyze the choice as to quantity and cost.
1. Influence of Advertising	. Collect clippings of food advertisements from newspapers and magazines and arrange them on a bulletin board.
	. Role play food advertisements heard on radio and television.
	. Set up a mock grocery store. Plan purchases of groceries for the family to "pay for" with play money.
2. Expense of Advertising	. Create posters to advertise food.
	. Discuss why one would or would not purchase the product advertised.
	. Point out that the expense of advertising must be added to the cost of the product.
	. Invite the school food service manager to come to the class and discuss some things she considers when she buys food.
	. Visit a local supermarket to see prices and compare products, and to observe sizes and types of containers.

FOOD CHOICES

OBJECTIVE VI. AFTER STUDYING ADVERTISING TECHNIQUES, THE LEARNER WILL LIST THREE TECHNIQUES WHICH INFLUENCE FOOD SELECTION AND COST.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
VI. BUYING AND SELLING FOOD	
B. Symbols Used In Buying Food	. Display containers of different sizes to illustrate quantities.
1. Standard System	- Measuring Spoons - Measuring Cups - Pint Jars and Bottles - Quart Jars and Bottles - Half Gallon Jars - Gallon Jugs - Liter Bottles - One-half Liter Bottles
2. Metric System	. Compare metric system with the standard measuring system.
	. Identify symbols used in measuring by the display of charts and posters to illustrate the following: - $ - Liter - ¢ - Gram - lb. - Kilogram - oz. - pt. - qt. - gal.
	. Collect information contained on labels including: - Ingredients - Weights - Ways to use the product
	. Invite nutritionists from state or county agencies to discuss food labelling.
	. Encourage learners to help put away food purchased for the home, checking food labels.

FOOD CHOICES

3-4

OBJECTIVE VI. AFTER STUDYING ADVERTISING TECHNIQUES, THE LEARNER WILL LIST THREE TECHNIQUES WHICH INFLUENCE FOOD SELECTION AND COST.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. BUYING AND SELLING FOOD	. Bring labels from food packages and compare the contents of various products. . Compile a collection of labels from different foods.
C. Factors Affecting Food Costs 	. List disasters that may cause higher food prices, such as: - Storms - Wind - Hail - Freezing - Diseases - Insects - Floods - Droughts
	. Compare the cost of fresh foods with canned or frozen foods. . Develop a bulletin board showing seasonal foods for spring, summer, fall and winter
	. Discuss that prices of locally produced foods vary at the beginning and at the peak of the season. - Watermelon - Peaches - Cantaloupe - Tomatoes - Strawberries
	. Compare cost of a glass of milk and a glass of orange juice with a glass of instant mix *EVALUATION* *. Summarize by developing a check sheet to use in identifying factors affecting cost of food.* *. Develop a bulletin board showing seasonal foods for spring, summer, fall and winter.*

FOOD CHOICES

RESOURCES

CONCEPT VI: BUYING AND SELLING FOOD

BOOKS:

Davis, O. L. and Blough, John A. Comparing Ways and Means.

Daivs, O. L. and Ramsey, Curtis. Investigating Communities and Cultures.

PAMPHLETS - BOOKLETS:

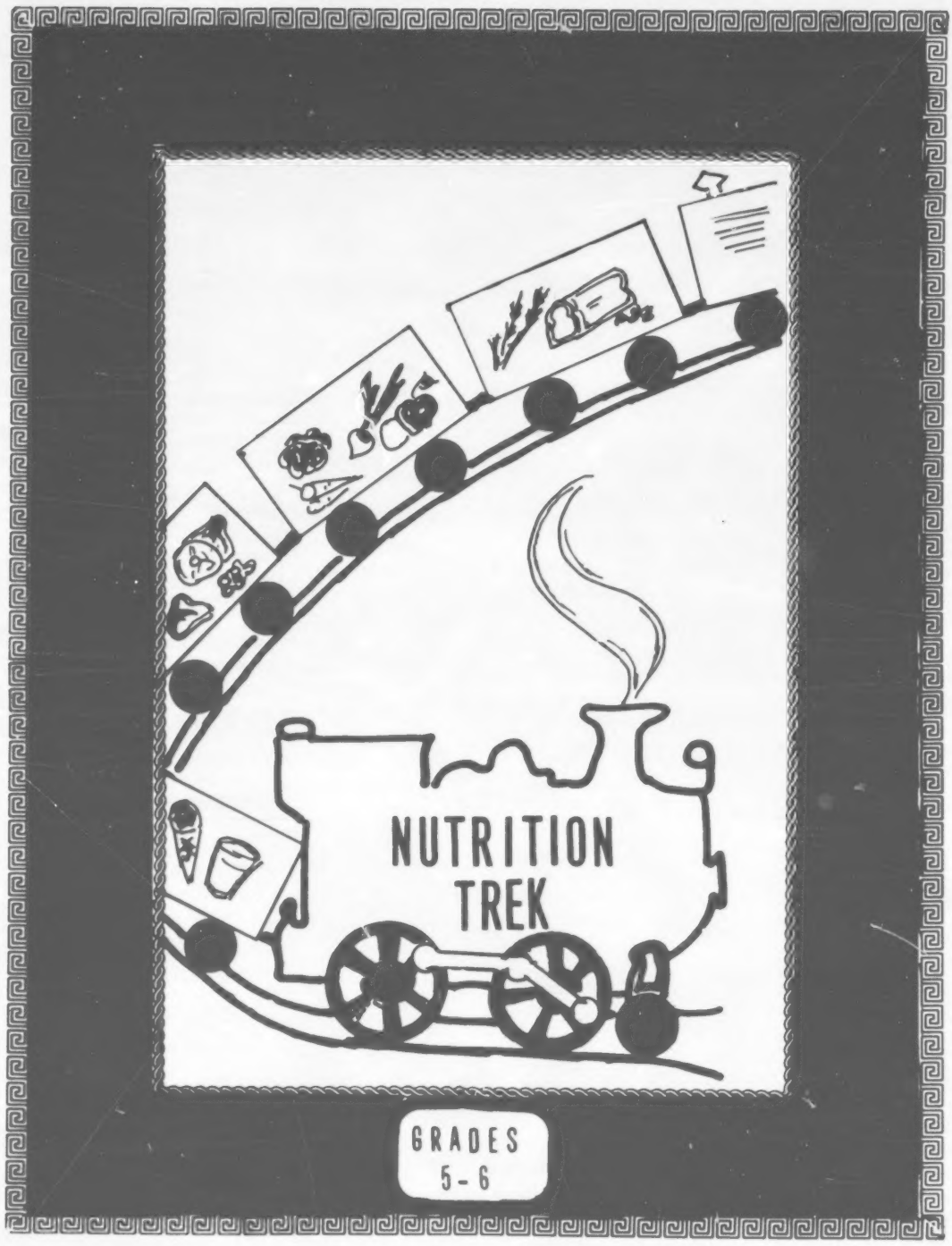
Allyn and Bacon. "American Community Series"

CHARTS - POSTERS:

FILMS - FILMSTRIPS:

MISCELLANEOUS:

*See Bibliography for further details.
(Use this sheet for recording additional resources)*


NUTRITION
TREK
GRADES
5 - 6

NUTRITION TREK

5-6

GRADES 5 - 6

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CONCEPTS	PAGE
I. FOOD NUTRIENTS.	62
OBJECTIVE-Given the substances contained in the composition of foods, the learner will be able to select six nutrients that supply body needs, identify their functions and match them with their food sources.	
II. DIGESTION OF FOOD.	74
OBJECTIVE-After discussing steps in the digestion of food, the learner will be able to state the mechanical and chemical changes that take place as it is utilized by the body.	
III. EFFECTS OF DIET.	79
OBJECTIVE-Given the rules of good health practices, the learner will explain the relationship between nutrition and health in a booklet or notebook.	
IV. FOOD SELECTION.	82
OBJECTIVE-After studying social, religious and cultural influences on food customs, here and in other countries, the learner will plan a festival around various food customs.	
V. FOOD PRODUCTION.	89
OBJECTIVE-Following class discussions and reports on growing and handling food, the learner will list five factors concerning its availability.	

NUTRITION TREK

GRADES 5 - 6

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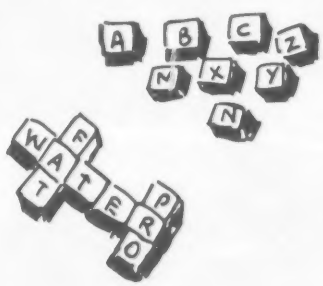
CONCEPTS	PAGE
VI. FOOD SANITATION.	91

OBJECTIVE- After investigating sanitation practices, the learner will name three ways food can become contaminated and list procedures to prevent these problems.

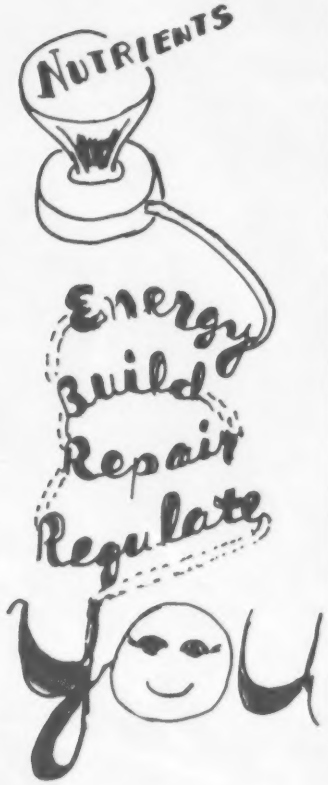
NUTRITION TREK

OBJECTIVE I. GIVEN THE SUBSTANCES CONTAINED IN THE COMPOSITION OF FOODS, THE LEARNER WILL BE ABLE TO SELECT SIX NUTRIENTS THAT SUPPLY BODY NEEDS, IDENTIFY THEIR FUNCTIONS AND MATCH THEM WITH THEIR FOOD SOURCES.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
A. Classification of Nutrients	. Define the word *nutrient* as a substance in food that nourishes the body.
1. Proteins	. Study health books and other references to learn about nutrients.
2. Fats	. List the most common nutrients found in food as follows: - Protein - Carbohydrates - Vitamins - Fats - Minerals - Water
3. Carbohydrates - Sugars - Starches	. Point out that the body needs nutrients, not specific foods.
4. Minerals - Calcium - Phosphorus - Iron - Iodine	. Point out that water is a part of all foods and is essential for proper body functions. . Discuss that water does contain traces of certain minerals. . Explain that flouride is often added to water supplies to prevent dental caries.
5. Vitamins - Vitamin A - Vitamin B .. Thiamin .. Riboflavin .. Niacin - Vitamin C - Vitamin D	. Use a crossword puzzle or other games to reinforce learnings of food nutrients. 
6. Water	

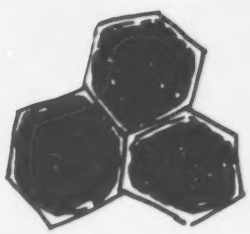
NUTRITION TREK

OBJECTIVE I. GIVEN THE SUBSTANCES CONTAINED IN THE COMPOSITION OF FOODS, THE LEARNER WILL BE ABLE TO SELECT SIX NUTRIENTS THAT SUPPLY BODY NEEDS, IDENTIFY THEIR FUNCTIONS AND MATCH THEM WITH THEIR FOOD SOURCES.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
B. Functions of Nutrients	. Show a film such as the "Real Talking, Singing Action Movie About Nutrition" to introduce the functions of the food nutrients.
1. Furnish Energy	. List and discuss the three functions of food nutrients: - Furnish energy for body activities - Build and repair body tissues - Regulate body processes
2. Build and Repair Body Tissues	
3. Regulate Body Processes	. Develop study questions concerning the function of food in the body to be found in books or reference materials.
	. Point out that all living things are made up of cells. *TEST FOR CELL STRUCTURE* - *Prepare and examine a slide of an onion skin.* - *Cut an onion in half and pull off a piece of the transparent skin that is outside each ring.* - *Place a piece of the onion skin in a drop of water on a glass slide.* - *Place one drop of iodine on the slide. Cover with a cover glass.* - *Look at the cell through the low power lens.* - *Determine if the cells fit together like bricks.* . Look at a hair under a microscope. . Determine how hair cells differ from onion cells.

NUTRITION TREK

OBJECTIVE I. GIVEN THE SUBSTANCES CONTAINED IN THE COMPOSITION OF FOODS, THE LEARNER WILL BE ABLE TO SELECT SIX NUTRIENTS THAT SUPPLY BODY NEEDS, IDENTIFY THEIR FUNCTIONS AND MATCH THEM WITH THEIR FOOD SOURCES.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
	. Ask learners to draw pictures of the cells which were examined on both slides.
	. Point out that cells in different parts of the body vary in many ways including: - Appearance - Functions - Food Requirements
1. Furnish Energy	. Explain how body cells change nutrients into energy and building materials.
	. Show film such as, "Food Energy and You".
	. State that nutrients combine with oxygen to give energy for: - Work and Play - Body Warmth - Heartbeat - Breathing
	. Point out that food energy is measured in calories.
	. Define a *calorie* as a unit of heat, explaining that it is the amount of heat required to raise the temperature of one kilogram of water one degree centigrade.
	. Explain that carbohydrates are divided into sugars and starches.
	. Point out foods which are high in starch, sugar and fat give us energy. (Go Foods)

NUTRITION TREK

OBJECTIVE I. GIVEN THE SUBSTANCES CONTAINED IN THE COMPOSITION OF FOODS, THE LEARNER WILL BE ABLE TO SELECT SIX NUTRIENTS THAT SUPPLY BODY NEEDS, IDENTIFY THEIR FUNCTIONS AND MATCH THEM WITH THEIR FOOD SOURCES.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
	. Demonstrate that food burns and gives off heat and energy: - Place a piece of bread over a flame. - Place a piece of bacon over the flame. - Determine which burns longer. . Observe that high fat foods burn longer than other foods. Explain that fat in the diet is not burned or used as quickly as carbohydrates. . Discuss recommended daily calorie allowances for different individuals. . Stress that the number of calories needed by a person depends on size, growth rate, metabolic rate and pnysical activity.
2. Build and Repair Body Tissue	. State that protein and minerals are the main nutrients used to build and repair body cells. . List foods or show pictures of the foods which contain nutrients for building and repairing body cells. . Determine the body cells which keep reproducing for growth even when body growth has stopped, such as: - Hair - Fingernails . Assign projects to learners researching the discovery of vitamins using available reference materials.

NUTRITION TREK

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COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
FOOD NUTRIENTS	
	. Explain deficiency diseases, such as: - Rickets - Scurvy - Anemia
	. State the function of calcium in the body.
	. Demonstrate the function of calcium by performing the following experiment: - Cover a clean chicken bone with vinegar and leave it for several days. - Observe that the bone will then bend easily.
	. Conclude from this experiment that calcium is needed to make bones rigid and hard.
	. Point out that calcium accumulates in bones as people grow older.
	. Determine ages when calcium is most needed by the human body.
	. Discuss the body's need for iron in building red blood cells.
3. Regulate Body Processes	. Explain that minerals and vitamins are used by the body to regulate its processes.
	. Study slides, under the microscope, to show red and white blood cells.

NUTRITION TREK

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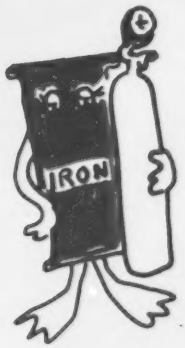
COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
	. Point out the role of iron in producing healthy blood. . Invite the school or the county nurse to discuss the functions of the red and white blood cells in the body. . Explain that iodine regulates the function of the thyroid gland. . Locate the thyroid gland on health charts. . Explain the function of the thyroid gland.
	. Discuss the value of Vitamin A for maintaining healthy skin and eyes. . Point out ways that B Vitamins assist the body including: - Helping cells use energy from foods - Calming the nerves and improving the appetite
	. Discuss ways Vitamin C assists the body, such as: - Strong Bones, Teeth and Blood Vessels - Healthy Gums - Restored Vitality . State that Vitamin D makes strong bones and teeth and improves the condition of the skin. . Develop a vocabulary list of words used in this study.

NUTRITION TREK

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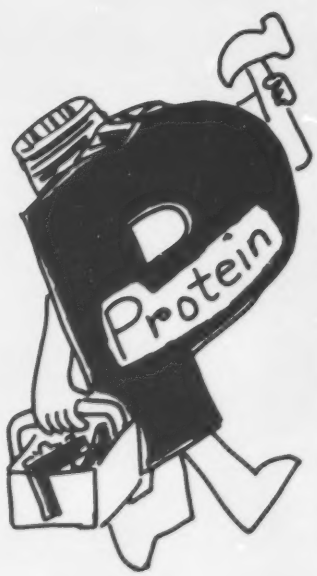
COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
C. Sources of Nutrients	. Discuss the fact that all foods contain nutrients in varying amounts.
1. Protein	. Use food comparison cards to find foods containing protein.
	. Determine, through experiments, some foods that contain protein.

TEST FOR PROTEIN

- *Explain that the odor of a burned feather is the characteristic odor of protein.*
- *Burn a feather to observe this odor.*
- *Test the following food items for protein content:*
  - *Meat*
  - *Beans*
  - *Mayonnaise*
  - *Butter*
  - *Dry Milk*
- *Determine which foods tested contain protein.*

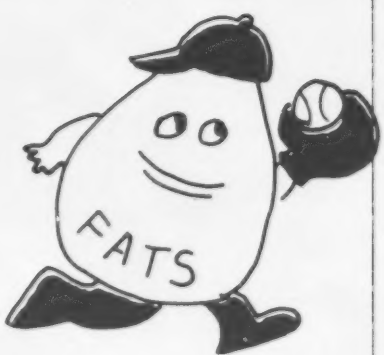
. List foods that the group ate yesterday. Identify the foods containing protein.

. Review the sources of protein by developing a bulletin board of foods containing this nutrient, including:

- Meat
- Fish
- Poultry
- Beans and Peas
- Nuts
- Eggs
- Dairy Products

NUTRITION TREK

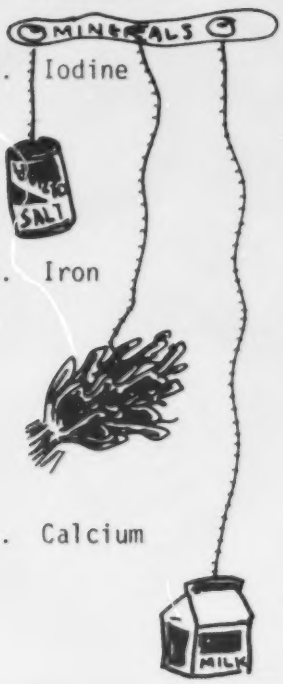
OBJECTIVE I. GIVEN THE SUBSTANCES CONTAINED IN THE COMPOSITION OF FOODS, THE LEARNER WILL BE ABLE TO SELECT SIX NUTRIENTS THAT SUPPLY BODY NEEDS, IDENTIFY THEIR FUNCTIONS AND MATCH THEM WITH THEIR FOOD SOURCES.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
2. Carbohydrates	. Review what is meant by a carbohydrate.
	. Explain that carbohydrates are found in breads, cereals, potatoes and other fruits and vegetables.
	. Use the following test for determining the presence of starches or carbohydrates in foods.
	TEST FOR STARCH
	- *Place a drop of iodine on food sample*
	- *If starch is present, a dark blue-purple color will result.*
	- *Test potatoes, breads, apples and spaghetti for starch content.*
3. Fats	. Show that fats are present in egg yolk, bacon, mayonnaise, cooking oil and butter.
	*TEST FOR FAT*
	- *Cut or mash food samples and rub on piece of brown paper.*
	- *Heat the paper over a light bulb.*
	- *If a grease stain is left on the paper, fat is present in the sample.*
	- *Test bacon, mayonnaise, egg whites, peanut butter, cheese, egg yolk and apple.*
	. Explain that sometimes all these three nutrients *(protein, carbohydrates and fats)* are found in the same food.

NUTRITION TREK

OBJECTIVE I. GIVEN THE SUBSTANCES CONTAINED IN THE COMPOSITION OF FOODS, THE LEARNER WILL BE ABLE TO SELECT SIX NUTRIENTS THAT SUPPLY BODY NEEDS, IDENTIFY THEIR FUNCTIONS AND MATCH THEM WITH THEIR FOOD SOURCES.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	. Test a variety of foods to determine some foods which contain all three nutrients.
4. Minerals	. Study assorted reference books to discover minerals needed by the body.
a. Iodine	. Develop posters or charts showing foods containing iodine such as: - Seafoods - Iodized Salt - Vegetables Grown in Areas Near the Coast
b. Iron	. Make charts, mobiles, etc., showing foods which contain iron, including: - Meats - Greens - Dried Fruits *(raisins, prunes, etc.)* - Dry Beans - whole grain or enriched cereals and breads
. Calcium	. Using comparison cards, determine the foods that are sources of calcium.
	. Develop a bulletin board showing minerals present in food.
5. Vitamins	. Point out sources of Vitamin A including:
a. Vitamin A	- Liver - Carrots - Squash - Greens - Whole Milk - Cantaloupe - Pumpkin - Spinach - Brocolli - Butter and Margarine
b. Vitamins of the B Complex	. Explain that B Vitamins help the cells use energy from foods.



NUTRITION TREK

OBJECTIVE I. GIVEN THE SUBSTANCES CONTAINED IN THE COMPOSITION OF FOODS, THE LEARNER WILL BE ABLE TO SELECT SIX NUTRIENTS THAT SUPPLY BODY NEEDS, IDENTIFY THEIR FUNCTIONS AND MATCH THEM WITH THEIR FOOD SOURCES.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
	. List the most common B vitamins, including: - Thiamin - Riboflavin - Niacin
	. Point out that all three of these B Vitamins are found in whole grain breads and cereals.
c. Vitamin C	. Study the story of Vitamin C and its food sources.
	. Discuss food sources of Vitamin C, such as: - Citrus Fruits and Juices - Tomatoes and Tomato Juice - Strawberries - Melons - Raw Cabbage - White Potatoes
	. Taste pure crystalline Vitamin C *(ascorbic acid)*. Compare taste with food sources of the vitamin such as citrus fruit and tomato juice.
d. Vitamin D	. Collect and study materials showing sources of Vitamin D, including: - Sun - Liver - Fortified Foods - Fish - Oils - Irradiated Foods
	. Explain that certain processed foods are enriched or fortified by adding certain minerals and vitamins, such as: - Iron - Riboflavin - Vitamin A - Thiamin - Niacin - Vitamin C - Vitamin D

NUTRITION TREK

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COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
I. FOOD NUTRIENTS	
	. List foods that have had nutrients added to them.
	. Develop a bulletin board of collected labels from foods that have been enriched or fortified with certain nutrients.
6. Water	. Explain the body's need for water and that foods contain varying amounts of water.
	. Experiment to show foods contain water by cooking a green leafy vegetable with no water added and observing that water collects in the pan.
	. Compare a piece of bread which has been left in the open air for several days with a piece of fresh bread and observe the dryness of the older bread.
	. Explain that the human body is two-thirds water.
	. State that our body cells accumulate water when we drink water, fruit juices, milk and other beverages and from the foods we eat.
	. Select from a wide assortment of food models the foods that are good sources of each nutrient. *(Use aprons, labeled with each nutrient, to hook on foods, etc.)*
	EVALUATION *. Summarize these learnings by developing a program to present to other groups, (parents and/or students), explaining the nutrients, their functions and sources.*

NUTRITION TREK

RESOURCES

CONCEPT I: FOOD NUTRIENTS

BOOKS:

Byrd, Oliver. Health-Level 5, Level 6.

Mollinson and Mollinson. Science, Understanding Your Environment.

Richmond, Julius. Health and Growth 6.

Whaley, Russell. Basic Health Science E and F.

PAMPHLETS - BOOKLETS:

National Dairy Council. "How Your Body Uses Food"
"The Great Vitamin Mystery"

CHARTS - POSTERS:

Cereal Institute, Inc. "Enhancing Nutritional Values of Food"

Department of Citrus. "Get Aboard the Good Ship Vitamin C"

National Dairy Council. "A Guide To Good Eating"

FILMS - FILMSTRIPS:

Oxford Films. "The Real Talking Singing Action Movie About Nutrition"

National Dairy Council. "How Food Becomes You" (Filmstrip)

Perennial Education, Inc. "What's Good to Eat"; "Vitamins from Food", and "Food, Energy and You".

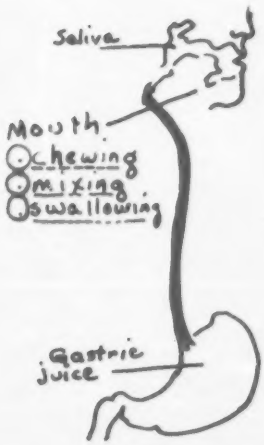
MISCELLANEOUS:

National Dairy Council. *"Comparison Cards" and "Food Models"*

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

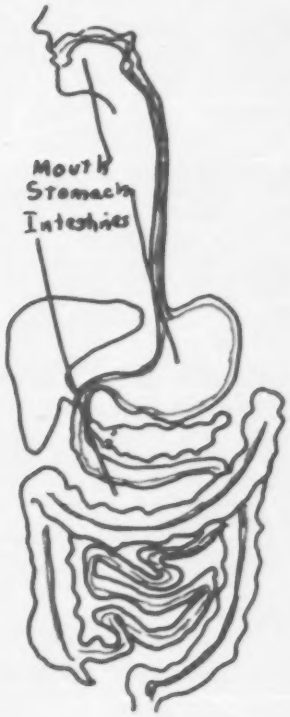
NUTRITION TREK

OBJECTIVE II. AFTER DISCUSSING STEPS IN THE DIGESTION OF FOOD, THE LEARNER WILL BE ABLE TO STATE THE MECHANICAL AND CHEMICAL CHANGES THAT TAKE PLACE AS IT IS UTILIZED BY THE BODY.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
DIGESTION OF FOOD	
A. Mechanical	. Define *digestion* as the process of breaking food down into small particles so that it can be used by the body.
	. Show a film or a filmstrip on the digestive system. . Read articles and make reports on digestion of food and on early scientists who began the study of digestion. . Trace the digestive system using transparencies or a life form model of the human body. Name each part. *(See Resources)* . Explain that through the process of digestion and absorption, foods are reduced to the nutrients and enter the blood stream.
1. Mouth	. Discuss the order in which digestion takes place.
2. Stomach	- Digestion begins in the mouth and continues in the stomach. - Food is moved along the gastro-intestinal tract by peristalsis, or muscle contractions.
3. Small Intestines	- Food goes from the stomach into the small intestines where the nutrients are absorbed into the bloodstream. - Waste materials are excreted as feces.
4. Large Intestines	. Explain the two phases of the digestive processes: - Mechanical----Chewing, Mixing, Swallowing and Peristalsic Action - Chemical------Action of Chemicals on Food in the Mouth, Stomach and Intestines

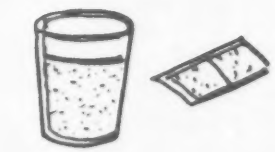
NUTRITION TREK

OBJECTIVE II. AFTER DISCUSSING STEPS IN THE DIGESTION OF FOOD, THE LEARNER WILL BE ABLE TO STATE THE MECHANICAL AND CHEMICAL CHANGES THAT TAKE PLACE AS IT IS UTILIZED BY THE BODY.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. DIGESTION OF FOOD	
	. Discuss how food is crushed and softened in the mouth in the following way: - Chewing or Mastication - Mixing with Saliva . Demonstrate that food dissolves quicker when in small particles. - Place a cube of sugar in a glass of water. - Place a spoon of granulated sugar in another glass of water. - Stir both glasses and observe which dissolves first. . Ask learner to demonstrate drinking milk or water through a straw while standing on his head. . Point out that swallowing does not depend upon gravity.
B. Chemical	. Define *enzymes* as chemical substances secreted by glands in or near the digestive tract. . Point out that enzymes change food so it can be absorbed by the bloodstream and used by the cells.

NUTRITION TREK

OBJECTIVE II. AFTER DISCUSSING STEPS IN THE DIGESTION OF FOOD, THE LEARNER WILL BE ABLE TO STATE THE MECHANICAL AND CHEMICAL CHANGES THAT TAKE PLACE AS IT IS UTILIZED BY THE BODY.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. DIGESTION OF FOOD	
	. Demonstrate that starch does not dissolve in the body, but that sugar will dissolve. Use following experiment to explain this point.
	STARCH AND SUGAR SOLUTION TEST
	- *Grind a cracker into powder and place one teaspoon of it in a glass of water.*
	- *Place a teaspoon of sugar in another glass of water.*
	- *Stir both mixtures.*
	- *Observe that the sugar solution is clear and the starch water is cloudy.*
	- *Determine that the starch did not dissolve, the sugar did dissolve.*
	. Explain that starch must be changed into sugar to be dissolved and used by the body.
	STARCH CONVERSION TEST
	- *Chew a cracker or piece of bread twenty times, holding it in the mouth for several minutes.*
	- *Discover that the starch has changed into sugar.*
	- *Determine that a sweet taste has developed.*
	. Explain that starch in fruits is converted to sugar as they ripen and that this is similar to the work of the saliva in the mouth.

NUTRITION TREK

OBJECTIVE II. AFTER DISCUSSING STEPS IN THE DIGESTION OF FOOD, THE LEARNER WILL BE ABLE TO STATE THE MECHANICAL AND CHEMICAL CHANGES THAT TAKE PLACE AS IT IS UTILIZED BY THE BODY.

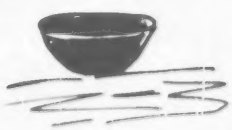
COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
II. DIGESTION OF FOOD	

. Show that starch is digested or changed to sugar in plants. Make slides with a ripe banana, and an unripe banana. Stain each with iodine. Determine that the slide showing the purple color contains more starch.

. Relate the change of starch to sugar to the development of a sweet flavor in the ripening of fruits.

. Demonstrate that nutrients enter the cell by penetrating the cell wall.

ABSORPTION TEST



- *Make a cell model as follows:*

  Mix: 1 packet of gelatin
  1 teaspoon cornstarch

  Add: ½ cup hot water and stir to dissolve.

  Pour: ½ cup gelatin mixture into plastic sandwich bag

  Add a ball of clay to represent the nucleus. Tie the bag tightly so that it has the shape of a ball. Try to remove the air. Cut away the extra plastic bag. Let the gelatin bag cool and harden overnight. The plastic bag represents the membrane. Fill jar three fourths full of warm water and add iodine until the water is tan. Place the gelatin model in the jar and let stand overnight.

- *Observe the color change of the gelatin solution inside the membrane. Note that it has turned blue, indicating the presence of starch.*

EVALUATION
. *Review by stating the mechanical and chemical processes of digestion in a class discussion.*

RESOURCES

CONCEPT II: DIGESTION OF FOOD

BOOKS:

Mollinson and Mollinson. Science, Understanding Your Environment.

Richmond, Julius. Health and Growth: 5.

Whaley, Russell. Basic Health Science-F.

PAMPHLETS - BOOKLETS:

National Dairy Council. "How Your Body Uses Food"

CHARTS - POSTERS:

FILMS - FILMSTRIPS:

Alabama Department of Health. "Health Films"

National Dairy Council. "How Food Becomes You" (filmstrip)

MISCELLANEOUS:

Milliken Publishing Company.
"*Foods and Your Health*" (transparencies of digestive system))

*(See Bibliography for further details.
(Use this sheet for recording additional resources)*

NUTRITION TREK

OBJECTIVE III. GIVEN THE RULES OF GOOD HEALTH PRACTICES, THE LEARNER WILL EXPLAIN THE RELATIONSHIP BETWEEN NUTRITION AND HEALTH IN A BOOKLET OR NOTEBOOK.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. EFFECTS OF DIET	
	. Show pictures of vibrant, healthy boys and girls.
	. Display posters such as the series of "You Are What You Eat".
	. Show film, "Food, Energy and You". *(See Resources)*
A. Diet and Deficiency Diseases	. Invite a nutritionist to talk to the class to explain what happens when individuals do not get enough of the right foods.
	. Review the reasons that the body needs food: - Life - Health - Growth - Energy
	. Determine what diseases are caused by poor diets.
	. Identify characteristics of deficiency diseases.
	. Point out that dificiency diseases could be controlled with proper diet such as use of iodized salt reduces incidence of goiters.
you are WHAT you eat	. Prepare displays for bulletin boards in the school cafeteria showing the importance of nutritionally adequate diets.
	. Experiment, using mice to show the effects of adequate and inadequate diets.
	. Write articles for local newspapers about nutritional experiments and surveys.

NUTRITION TREK

OBJECTIVE III. GIVEN THE RULES OF GOOD HEALTH PRACTICES, THE LEARNER WILL EXPLAIN THE RELATIONSHIP BETWEEN NUTRITION AND HEALTH IN A BOOKLET OR NOTEBOOK.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. EFFECTS OF DIET	
B. Diet and Dental Health	. Assign reports on dental health, using available reference materials.
	. List foods essential to healthy teeth and gums.
	. Discuss the fact that while cleanliness of the mouth and teeth is important as a means of controlling gum disease and tooth decay, the daily intake of nutritious food is essential for healthy teeth and gums.
	. Point out that flouride is added to water supplies in some cities to reduce dental caries.
	. Invite a dentist or a certified hygienist to talk to the class on dental health.
	. Select foods which provide good dental health from a display of food models.
C. Diet and General Well-Being	. Assign reports on the relationship of diet to general well-being.
	. Point out ways appearance is affected by the foods we eat, such as: - Too much food causes overweight. - Too little food causes underweight. - Too many fat and sweet foods may cause skin blemishes. - Lack of milk may make fingernails brittle. - Lack of milk, eggs, and meat may make hair dull.

NUTRITION TREK

OBJECTIVE III. GIVEN THE RULES OF GOOD HEALTH PRACTICES, THE LEARNER WILL EXPLAIN THE RELATIONSHIP BETWEEN NUTRITION AND HEALTH IN A BOOKLET OR NOTEBOOK.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
III. EFFECTS OF DIET	. Explain the relationship of a good diet to a cheerful disposition. . Cite cases where lack of breakfast slowed down one's learning ability. . Use a check sheet to select personal characteristics affected by diet.

EVALUATION

. Develop a health booklet showing the relationship between nutrition and health.

NUTRITION TREK

RESOURCES

CONCEPT III: EFFECTS OF DIET

BOOKS:

Byrd, Oliver. Health - Level 5, Level 6.

Mollinson and Mollinson. Science: Understanding Your Environment.

PAMPHLETS - BOOKLETS:

American Dental Association.
"The Care of Children's Teeth"
"Nutrition and Dental Disease"
"You Can Prevent Tooth Decay"
"They're Your Teeth--You can Keep Them"

CHARTS - POSTERS:

American School Food Service Association. "You are What You Eat"

FILMS - FILMSTRIPS:

Oxford Films. "The Real Talking Singing Action Movie About Nutrition"
Perennial Education, Inc. "Food, Energy and You"

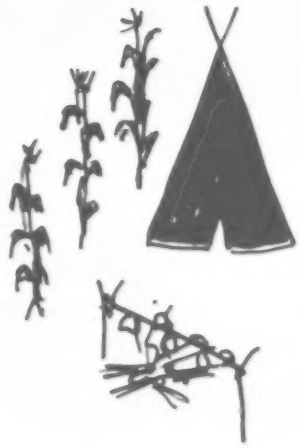
MISCELLANEOUS:

National Dairy Council. *"Food Models"*

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

NUTRITION TREK

OBJECTIVE IV. AFTER STUDYING SOCIAL, RELIGIOUS AND CULTURAL INFLUENCES ON FOOD CUSTOMS, HERE AND IN OTHER COUNTRIES, THE LEARNER WILL PLAN A FESTIVAL AROUND VARIOUS FOOD CUSTOMS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD SELECTION	
A. Food Customs of Earlier Times	. Read about the food customs of early man.
	. Study food customs of the American Indians.
	. List foods eaten by the American Indians which are important to our American Heritage.
	. Plan menus and develop displays celebrating a pioneer day in the school cafeteria.
	. List foods eaten by people in the United States which were brought from other countries and integrated into American living.
	. Study and discuss reference materials and make reports on foods characteristic to certain regions of the United States.
B. Food Customs of Other Countries	. Choose a country from the social studies area and explore the kinds of food eaten there.
	. Point out that economic, political and social life of a country affects its food supply.
	. Study holiday customs of other countries.
	. Plan special menus including foods from other countries which might be served in the school cafeteria.
	. Decorate school cafeteria tables for special menus and dress in native costumes, if possible.

NUTRITION TREK

OBJECTIVE I. AFTER STUDYING SOCIAL, RELIGIOUS AND CULTURAL INFLUENCES ON FOOD CUSTOMS, HERE AND IN OTHER COUNTRIES, THE LEARNER WILL PLAN A FESTIVAL AROUND VARIOUS FOOD CUSTOMS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD SELECTION	
	. Develop cards, explaining food customs of foreign countries and match the cards to the corresponding country on a map. . Explain that customs and beliefs about food vary in different countries. . Discuss that the availability of food influences these customs.
C. Influences on Food Selection	. Investigate and discuss the religious beliefs that influence food habits, such as: - Seventh Day Adventists omit meat - Hebrew Muslims omit pork - Mormons omit coffee and tea . Invite ministers or other speakers to talk about specific religious groups and their food habits and customs. . Report on religious groups and their food practices, such as: - Protestantism--Bread and Wine have certain meanings in the Communion Service. - Catholicism----Lenten customs may affect food practices. - Judaism--------Eating pork is forbidden in some cases. - Hinduism-------Killing a cow is a great sin because a cow is considered to be sacred. The highest caste is the vegetarian.

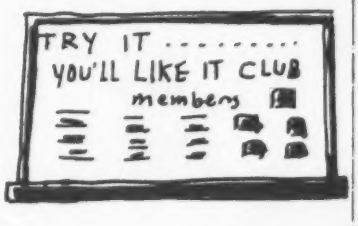
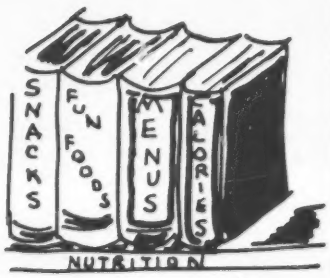
NUTRITION TREK

OBJECTIVE IV. AFTER STUDYING SOCIAL, RELIGIOUS AND CULTURAL INFLUENCES ON FOOD CUSTOMS, HERE AND IN OTHER COUNTRIES, THE LEARNER WILL PLAN A FESTIVAL AROUND VARIOUS FOOD CUSTOMS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD SELECTION	
	. Discuss how eating habits of a child may change when he eats with other boys and girls.
	. Discuss how the meals served at school affect the food habits of children.
	. Ask if some children eat foods at school which they do not eat at home.
	. Discuss the following questions: - Do all family members eat alike? - Do food habits change as people grow older?
	. Discuss how food habits change when families move from one part of the country to another.
	. Plan cooperatively with the school food service manager for a United Nations lunch. Include foods from several countries which fit into the Type A lunch pattern.
D. Superstitions Concerning Food	. Discuss superstitions which exist about foods, including: - Fish is brain food. - Fish and milk should not be eaten together. - Garlic purifies the blood. - Grapefruit burns fat.
	. Relate that food selection is an individual act but it is influenced by social and cultural sanctions.

NUTRITION TREK

OBJECTIVE IV. AFTER STUDYING SOCIAL, RELIGIOUS AND CULTURAL INFLUENCES ON FOOD CUSTOMS, HERE AND IN OTHER COUNTRIES, THE LEARNER WILL PLAN A FESTIVAL AROUND VARIOUS FOOD CUSTOMS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
. FOOD SELECTION	
E. Broadening Food Selections	. Bring different foods to class and have a tasting party of unfamiliar foods.
	. Encourage students to eat unfamiliar foods that provide needed nutrients.
	. Form a "Try-It-You'll-Like-It Club".
	. Post membership list on bulletin board.
	. Discuss the place of snacks in a well balanced diet.
	. Recall that snacks are included in total food intake to determine if the diet is wholesome and well balanced.
	. Review and list snacks that are wholesome, such as: - Milk - Fruit - Sandwich
	. Compare wholesome snacks with the snacks that afford only empty calories. - Candy - Cokes
	. Set up a mock cafeteria line of food models for learners to use in selecting meals. Check selection against the requirements for a balanced Type A lunch.
	. Secure menus from different restaurants.

NUTRITION TREK

OBJECTIVE IV. AFTER STUDYING SOCIAL, RELIGIOUS AND CULTURAL INFLUENCES ON FOOD CUSTOMS, HERE AND IN OTHER COUNTRIES, THE LEARNER WILL PLAN A FESTIVAL AROUND VARIOUS FOOD CUSTOMS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
IV. FOOD SELECTION	. Use menus to practice ordering a well balanced meal when eating away from home.

EVALUATIONS

. Review factors affecting food selection and have a food festival, exhibiting foods from different countries, different time periods, etc.

. Plan a food festival around various customs practiced here and in other countries.

NUTRITION TREK

RESOURCES

CONCEPT IV: FOOD SELECTION

BOOKS:

Cote, Patricia. People, Food and Science.

Lowenberg, Miriam. Food and Man.

PAMPHLETS - BOOKLETS:

American Home Economics Association. "Entertaining Foreign Visitors"
"Family Holidays Around the World"

National Dairy Council "Animals that Give People Milk"

CHARTS - POSTERS:

National Dairy Council. "What did you have for Breakfast?"

FILMS - FILMSTRIPS:

National Dairy Council. "The Big Dinner Table"; "Your Food--Chance or Choice";
"Why not Snack?"

MISCELLANEOUS:

Cling Peach Advisory Board. *"Nutrition Oriented Menus"*

National Dairy Council *"Food Models" and Comparison Cards"*

**See Bibliography for further details.*
(Use this sheet for recording additional resources)

NUTRITION TREK

OBJECTIVE V. FOLLOWING CLASS DISCUSSIONS AND REPORTS ON GROWING AND HANDLING FOOD, THE LEARNER WILL LIST FIVE FACTORS CONCERNING ITS AVAILABILITY.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
V. FOOD PRODUCTION	
A. Growing Food--Agriculture	. Show film on food production such as "Food For A Modern World".
	. Invite the agri-business teacher to talk to the class about growing food and the relationship of soil to health.
	. Study and make reports on availability of food from social studies books and other references.
	. Plant seeds to begin a garden. Use some seeds from foods eaten by the children.
	. Refer to the stories of Douglas Fairbanks and George Washington Carver and their efforts toward increasing food production for particular food items.
B. Handling Food--Transportation	. Discuss the role transportation plays in supplying our food.
	. Plan a field trip to a food market to learn the following: - Where the store buys its fruits and vegetables - How often foods are delivered - How the selection of food varies with the season - How different foods are sold *(pound or number)* - What are the names of new and different foods?
	. Select and purchase unfamiliar food items which could be used in the classroom for a tasting party.
	EVALUATION *. Summarize unit by asking learners to work in groups to develop posters listing and illustrating five factors concerning availability of foods.*

5-6

RESOURCES

CONCEPT V: FOOD PRODUCTION

BOOKS:

Cote, Patricia. People, Food and Science.

PAMPHLETS - BOOKLETS:

CHARTS - POSTERS:

National Dairy Council. "Milk from Farm to Family"

FILMS - FILMSTRIPS:

Cereal Institute. "Grain from Farm to Table"

Perennial Education, Inc. "Food for a Modern World"

MISCELLANEOUS:

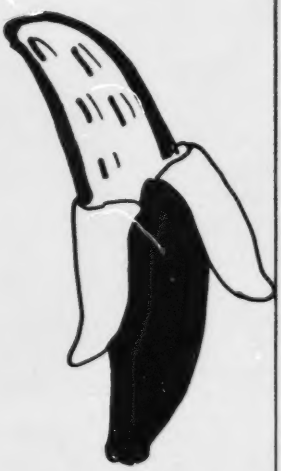
**See Bibliography for further details.*
(Use this sheet for recording additional resources)

NUTRITION TREK

5-6

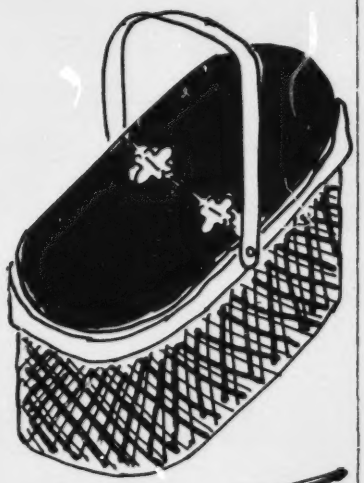
OBJECTIVE VI. AFTER INVESTIGATING SANITATION PRACTICES, THE LEARNER WILL NAME THREE WAYS FOOD CAN BECOME CONTAMINATED AND LIST PROCEDURES TO PREVENT THESE PROBLEMS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
VI. FOOD SANITATION	
A. Contamination of Food	. Define *germs*. Discuss ways germs get on food. . Show slides on microscope of bacteria or germs. . Observe on a plate, the dirt removed by washing a food or plant such as a sweet potato, turnip greens, etc. . Discuss why foods should be washed before eating. . Develop a bulletin board to summarize ways food becomes contaminated.
B. Protection of Food	. Discuss and examine foods that have protective coverings which keep the inside content clean and free from germs. . Show the children that some foods have natural protection against germs, such as eggs, peas, beans, grapes, potatoes and bananas. . Examine different types of wrappers used on food and discuss reasons for covering and packaging food. . Discuss ways foods may be stored in the home to protect them. . Point out that foods may be stored in places such as: - Cabinets - Refrigerators - Pantries - Air Tight Containers . Name some foods which must be stored in the refrigerator.



NUTRITION TREK

OBJECTIVE VI. AFTER INVESTIGATING SANITATION PRACTICES, THE LEARNER WILL NAME THREE WAYS FOOD CAN BECOME CONTAMINATED AND LIST PROCEDURES TO PREVENT THESE PROBLEMS.

COURSE OUTLINE	LEARNING EXPERIENCES - *EVALUATIONS*
VI. FOOD SANITATION	. Stress the importance of washing hands before meal time, after using toilet and when hands become soiled.
C. Sanitary Procedures	. Invite a representative from the health department to discuss how illness may be caused by the following: - Improper handling of food - Improper storage of food - Eating or drinking from used containers
	. Name and discuss diseases that result from unsafe practices used in food handling and storage.
	. Stress the importance of clean food habits *(washing hands before handling food or eating)* in preventing the common cold and other illnesses.
	. Collect samples of meat, fruit, bread and other foods and leave them uncovered in the classroom so that the learners may see the flies settling on them. Illustrate by means of charts or drawings, the harm done by flies to health.
	. Make posters on cleanliness in storing, preparing and disposing of foods.
	. Plan a picnic and follow sanitary practices in preparing food.

EVALUATIONS

. List three ways food can become contaminated and give ways to prevent these problems.

. Summarize unit by planning a picnic, asking each person to prepare a lunch following sanitary health rules learned in this unit.

NUTRITION TREK

RESOURCES

CONCEPT VI: FOOD SANITATION

BOOKS:

Cornacchia, Harold. Health in Elementary Schools.

Whaley, Russell. Basic Health Science-F.

PAMPHLETS - BOOKLETS:

CHARTS - POSTERS:

FILMS - FILMSTRIPS:

Alabama Department of Health. "Health Films"

MISCELLANEOUS:

United States Department of Health, Education , and Welfare, Food and Drug Administration.
"FDA Packet A- Consumer Protection Foods"

**See Bibliography for further details.*
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Lee, Tina. Manners to Grow On. Garden City, New York: Doubleday and Company, Inc. 1955. ($3.95)

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Richmond, Julius B.; Polonds, Elenore and Fricke, Irma B., et al., Health and Growth, Books I-VIII. Glenview, Illinois: Scott, Foresman and Company. 1971. ($2.79 each)

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Zim. Herbert S. Your Food and You. New York: William Morrow and Company. 1957. $4.14)

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"The Care of Children's Teeth"
"They're Your Teeth...You Can Keep Them"
"Nutrition and Dental Disease"

American Home Economics Association, 2010 Massachusetts Avenue NW, Washington, DC. 20036
"Entertaining Foreign Visitors"
"Family Holidays Around the World"

American School Food Service Association, 4101 East Iliff Avenue, Denver, Colorado. 80222
"Fun With Foods Coloring Book"

Association for Childhood Education International. 3615 Wisconsin Avenue, NW, Washington, D.C. 20016
"Nutrition and Intellectual Growth in Children"

Dennison Manufacturing Company, Framington, Massachusetts. 01701
"Dennison Booklet No. 556"

Educational Research Council of America, Allyn and Bacon, Atlanta, Georgia.
"American Community Series"

National Dairy Council, 111 Canal Street, Chicago, Illinois. 60606.
"Ice Cream for You and Me"
"Animals That Give People Milk"
"More Milk Please"
"What Will I Be From A to Z"
"How Your Body Uses Food"

United States Department of Agriculture, Washington, D.C.
"A Menu Planning Guide for Breakfast at School"

CHARTS AND POSTERS:

Cereal Institute, Inc., 135 South LaSalle Street, Chicago, Illinois. 60603
"The Good Grains" *(Guide and Wall Chart)*
"Enhancing Nutritional Values of Food"

David C. Cook Publishing Company, Elgin, Illinois. 60120.
"Food and Nutrition Teaching Pictures"

Department of Citrus, State of Florida, School Services Division, Lakeland, Florida.
"Get Aboard the Good Ship Vitamin C"
"A Bright Smile is to Keep"
"Breakfast Charts"
"Snack Light, Snack Right"

Green Giant Company, 5601 Green Valley Drive, Minneapolis, Minnesota. 55437.
"Vegetable Poster Series"

National Dairy Council, 111 N. Canal Street, Chicago, Illinois. 60606.
"Comparison Charts"
"Every Day, Eat the 1-2-3-4 Way"
"Four Food Groups"
"What Did You Have for Breakfast This Morning?"
"See How They Grow"
"We All Like Milk"
"Milk from Farm to Family"

United States Department of Agriculture, Washington, D.C.
"A Menu Planning Guide for Breakfast at School"
"Type A Poster"
"Daily Food Guide"

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"Health Films"

American Bakers Association, 20 North Wacker Drive, Chicago, Illinois. 60605.
"What's In Our Food?"

Association Films, 8615 Directors Row, Dallas, Texas, 75247.
"The Big Dinner Table"

Cereal Institute, Inc., 135 South LaSalle Street, Chicago, Illinois. 60603
"Skimpy and A Good Breakfast"
"Alexander's Breakfast Secret"
"Grain from Farm to Table"

Eyegate House, Inc., Jamaica, New York. 11435
"Manners Make a Difference:
"Right Foods Help Health"

Filmstrip House, Inc., 423 Park Avenue South, New York, New York. 10016
"Nutrition" *(set of four)*

Kraft Foods, 500 North Pestigo Court, Chicago, Illinois. 60690.
"The Great Food Show"

McGraw-Hill Test Film Department, 1221 Avenue of the Americas, New York, New York. 10020.
"Table Manners"

National Dairy Council, 111 N. Canal Street, Chicago, Illinois. 60606
"What's Good to Eat"
"Uncle Jim's Dairy Farm"
"Why Not Snack?"
"You and Your Food"
"Your Food--Chance or Choice"
"The Big Dinner Table"

Oxford Films, 1136 Las Palmas Avenue, Los Angeles, California. 90038
"The Real Talking Singing Action Movie About Nutrition"

Perennial Education, Inc., (Newenhouse), 1825 Willow Road, Northfield, Illinois, 60093.
"Food for a Modern World"
"Food, Energy, and You"
"What's Good to Eat"
"Vitamins from Food"

Society for Visual Education, Inc., 1345 Diversey Parkway, Chicago, Illinois. 60614.
"The Fairy Ring Singer"

MISCELLANEOUS:

American School Food Service Association, 4101 East Iliff Avenue, Denver, Colorado. 80222
"Yummy Rummy Game"
"Fun With Foods Coloring Book"

Cling Peach Advisory Board, 1 California Street, San Francisco, California. 94111.
"Nutrition Oriented Menus"

Kellogg Company, Battle Creek, Michigan. 49016.
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"Tasting Parties"

Milliken Publishing Company, St. Louis Missouri.
"Foods and Your Health"

Nasco, Fort Atkinson, Wisconsin. 53538.
"Life/form Food Models"

National Dairy Council, 111 N. Canal Street, Chicago, Illinois. 60606.
"Food Models"
"Every Day--Eat the 1-2-3-4 Way" (miniature)
"How I Grow"

United States Department of Agriculture, Washington, D. C. 20250
"The Good Foods Coloring Book"

United States Government Printing Office, Superintendent of Documents,
Washington, D. C., 20402.
"FDA Packet A-Consumer Protection Foods"